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Clinical Lectures.

MELANOTIC 'SARCOMA; VESICAL CALCULUS; COLD ABSCESS OF HAND; FRACTURE OF FEMUR AND RUPTURE OF QUADRICEPS TENDON.

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CLINIC.

Gentlemen:—This patient, a man of seventy, has had for seven or eight months a spot over his right nipple looking as if he had been tattooed. Underneath these little black points which you can readily see, I feel a hard mass to which the skin is attached but which still moves over the pectoral fascia. He has been on the medical side of the house and I have seen him only once before. From this history of the case, I have come to the conclusion that this is a neoplasm, and about the only tumor which can give such a black color is a melanotic one which is practically always sarcoma. It is probable, therefore, that we have to deal with a melanotic sarcoma of the skin and subcutaneous tissues. His liver is enlarged and in such a case we would expect metastasis of the liver. Were it not for this patient's age and the evil—I might say infernal—tendency which these growths manifest to recur after apparently the most perfect removal, I should advise operation. Under the circumstances, however, especially as the progress of the growth is slow, I should not advise surgical interference.

VESICAL CALCULUS.

The next patient is an old man with chronic cystitis and a very large prostate body. He suffers, as these patients usually do, with frequent urination, a

certain amount of pain referred to the end of the penis and many of the rational signs of stone in the bladder. Thrice, however, a number of weeks ago, I sounded him as carefully as I could, after having injected into the bladder from a fountain syringe all the water that he could bear without an anæsthetic and I did not touch anything gritty or calcareous. Quite recently, however, the orderly who has been washing out his bladder daily informed me that on inserting a soft catheter he noticed something gritty. I also felt the same gritty obstruction to the movement of the soft catheter but I could not get the sensation with the hard catheter. I have had the patient anæsthetized in order to examine him carefully, and, if I find a stone, I shall probably make a perineal section and perform lithotomy. I should have done this sooner had it not been for the patient's age and feeble condition. Ninety-five per cent. of the cases of stone in the bladder are easily diagnosed by passing a proper sound or stone searcher into the bladder and rubbing or striking it against the stone. Occasionally, however, we meet with cases in which the detection of the stone is difficult and in which the best men fail to discover it except after the operation undertaken on account of the symptoms. Now, with the patient etherized, the minute I pass the metallic catheter I touch the stone with perfect ease. It is hard to say why I did not find it at the three previous examinations with a metallic instrument. The patient is too large and stout a man for the performance of the suprapubic operation and I do not like the method of drainage by the suprapubic operation as well as by the perineal section. After completely filling the bladder with a boric acid solution, I introduce the most approved form of stone-searcher which consists of a steel sound with a short beak in

order to verify my diagnosis. I now pass the grooved staff into the bladder and make a median section through the perineum till I reach it. On account of the fat of the patient, the distance from the perineum to the bladder is so great that only the tips of the fingers can be inserted into the bladder and I must use the forceps to grasp the stone. The stone seems partially adherent and I am hindered not only by this fact and by the unusual depth of the bladder from the surface but by the resistance offered by the enlarged lobes of the prostate. The stone slips away from the grasp of the forceps behind the prostate. In order to overcome the mechanical difficulties in removing the stone, we will extend the legs fully in order to let the stone drop back into the fundus of the bladder and to relax the perineum. I have at last succeeded in removing the stone in fragments and you are no doubt surprised that anyone, even a novice could have failed to touch it with a sound.

[Clinic four days later.]

The fragments of stone after being dried and weighed amounted to twenty-one grains. The patient left the table in good condition, the bladder drainage was free and everything was favorable till afternoon when he appeared somewhat dusky in the face, his mind was not quite clear and in the night he developed the signs and symptoms of pneumonia. The next day there was very evident pneumonia with consolidation of the lower part of the right lung. The patient ran down steadily and died three days after the operation, the bladder symptoms at no time having been alarming or sufficient to cause any apprehension. Pneumonia is not an infrequent accident of surgical practice, especially in old people and you remember I have already told you how many old persons who sustain fracture of the neck of the femur die of pneumonia. There is an essential difference between acute crupous pneumonia and this form which occurs in the aged. The cause of the latter is a failure to maintain the equilibrium of the circulation, a sort of congestion of the lungs results and this develops into a broncho-pneumonia. This patient probably had surgical kidney which is a very definite name for a rather indefinite lesion consisting of minute abscesses in the kidney, a pyelitis and distention of the pelvis of the kidney. His urine did not reveal

this condition because there was so much pus from the bladder that even a microscopic examination was not sufficient. I want this case to serve as a lesson that in elderly people or, in fact, in any patient with diseased kidneys and with a consequently imperfect urinary excretion, there is a greater liability to bronchitis or broncho-pneumonia or even cardiac troubles, both pericarditis and endocarditis, than in other patients. Every now and then it happens that a patient is lost from some complication of this kind. Some time ago, I lost a patient on whom I did a laparotomy for gun-shot wound of the abdomen, the cause of death being inflammation of the pericardium.

COLD ABSCESS OF THE HAND.

This young woman came to me several months ago with a skin disease about the hands and wrists which resembled lupus and which was regarded by Dr. Wende, myself and several others as tuberculosis of the skin. She was treated with inoculations of tuberculin and with various external applications. Some time afterward she developed a fluctuating swelling in the ball of the thumb which I diagnosed as cold abscess and opened, letting out a quantity of caseous, puruloid matter. There persists a sinus which discharges and I shall to-day open it freely and curette its walls. You will notice that I do no more cutting in the palm of the hand than can be helped as I wish to avoid cicatricial contraction.

There is also on the back of the wrist a fluctuating swelling which is probably a distention either of the bursa or of the tendon sheaths. On making an exploratory incision, the accumulation seems to be entirely of serum and not sufficient to warrant further interference.

I have scraped out the sinus in the palm and have packed it with iodoform gauze. We shall in all probability have closure of its walls with granulation tissue or, as it was formerly called, by second intention. The exploratory incision on the back of the wrist I will close with catgut.

RUPTURE OF QUADRICEPS TENDON.

Some two months ago, this patient was injured in a peculiar way by a run-a-way. The tendon of the quadriceps extensor was torn off from the patella and there was a fracture of the external condyle of

the femur—in fact I think that more than the external condyle was broken off. I did not see the patient until a few days ago. At that time when the dressings were removed I found no attempt at union of the bone and the quadriceps tendon was drawn up and contracted. If it were simply non-union of bone, this would be a very fair case in which to test Brainerd's operation of drilling the bone in several directions in order to excite the formation of inflammatory callus. But there is also to be considered the condition of the muscle which, if not corrected, will surely weaken the limb. I purpose therefore, opening the knee joint and trying to sew the tendon to the patella as well as fastening the fragment of bone to its proper place. On moving the leg you will see that there is free movement above the knee, indicating that there has been fracture of the femur just above the condyle.

A transverse incision was made over the patella in order to expose the fracture. The bone ends were not sharp but were covered with connective tissue. In order to make them unite, this material was cut away and the fractured surfaces freshened with scalpel and bone forceps. The quadriceps tendon was sewed to the fibrous investment of the patella.

A CONTRIBUTION TO THE HISTOLOGY OF METASTATIC PHLEGMON.

Bunday (*Centralblatt für Chirurgie*, April 16, 1892), says, the explanation of the cause of extensive cell tissue phlegmon, inflammation of the serous membranes and the joints by pyæmia, is very difficult, and especially so when the metastatic formations by septic emboli or by cocci emboli cannot be recognized in the capillaries. The author presents the following conclusions from his studies:

"It is not at all necessary that the mechanism of the embolus, or particles of tissue, or masses of cocci should make a metastatic abscess, but the endothelial cells of the blood-vessels are inoculated by the microorganisms circulating through the blood, grow with great rapidity, break through the wall of the vessel and go to production of phlebitis and thrombosis, and still later, phlegmona. This condition is generally diffuse in contrast to the circumscribed embolic abscess, and is due to the histological arrangement of the tissue."—*Univ. Med. Mag.*

SURGERY OF THE GALL-PASSAGES AND LIVER.

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(Continued from the last issue of the REPORTER.)

The following are the histories of the other patients operated upon by me.

Empyæma of the gall-bladder; adhesion of the same to the abdominal walls; obliteration of the cystic duct; incision and recovery.

CASE VIII. Mrs. W., 69 years old. Twenty-five years previously the patient had suffered from "stomach cramps." For two years previous to her admission she had frequent pains in the region of the stomach and became greatly emaciated. Five weeks previously she was taken ill with severe pains in the region of the liver, accompanied by chills and fever.

The patient was admitted July 7, 1890. The abdomen was distended and the liver reached down to the level of the navel. At its lower edge was a fluctuating growth, and the skin over this was inflamed.

On July 8, 1890, an incision was made and about one quart of fetid pus evacuated. From the abscess cavity the finger could be introduced into a large cavity attached to the abdominal walls, which stretched upwards under the liver and had apparently walls of mucous membrane. This was the gall-bladder. It was found to contain no stones. The cystic duct could not be sounded. The cavity was drained and tamponed with iodoform gauze. No gall was ever evacuated. The cavity slowly healed up, and the patient was discharged on September 11, cured.

Cholelithiasis; empyæma of the gall-bladder; carcinoma of the pancreas and liver; abscess of the liver; cholecystotomy at one sitting; evacuation of stones; death.

CASE IX. Mrs. K., 53 years old. Fifteen years previously, after a child-birth she began to suffer from symptoms of gall-stones. These troubles increased in severity after each child-birth. Seven years previously she passed gall-stones, and at the same time had icterus. She took the Karlsbad cure several times. Two months prior to admission she fell ill with severe

pains in the liver, and was unable to retain almost any nourishment. She again had icterus, and once passed some small gall-stones. She became greatly emaciated and lost in strength.

The patient was admitted August 17, 1891.

The patient was a moderately strong woman with a pendant abdomen. There was a slight icterus. The tongue was coated. The liver dullness began at the sixth rib and reached on a line with the nipple to the level of the navel. Here one could feel a rather flat, round growth, tense but not doughy, and painful to the touch. The supra-clavical glands were not enlarged.

Diagnosis: Cholelithiasis, and possible carcinoma of the liver.

On August 19, the operation of cholecystotomy was performed at one sitting. The longitudinal incision was used, and the tumor was found to be covered with adhesions, which were partly divided. The under-surface of the liver was hard and thickened. Puncture of the scarred and thickened wall of the gall-bladder revealed the presence of pus. This organ was then sewed to the abdominal wound and opened. The incision allowed the evacuation of a quantity of pus (containing staphylococci) and thirty-one gall-stones, after the removal of which clear gall was evacuated. A drainage tube and iodoform gauze was placed in the gall-bladder.

After the operation the pains diminished and the abdomen remained soft. Flatus and feces were passed by the bowels. The patient, however, continued to grow weaker, recovered but poorly, and vomited frequently. Then the tongue became dry and the "sensorium" affected. Death occurred on September 2.

Autopsy: Peritoneum smooth and glistening; Carcinoma of the pancreas, liver and retro-peritoneal glands; gall-bladder free from stones and pus. Ductus choledochus buried in cicatricial tissue, and distended in parts. In these distended portions stones of the size of a pea were found. In the liver large abscesses were found corresponding in place to the gall-passages.

Empyema of the gall-bladder occasioned by gall-stone; partial necrosis of the wall of the gall-bladder; cholecystotomy at one sitting; recovery.

CASE X.—L. R. The patient had given birth to two children, the last time being during the first of March, 1891. During the first part of September, of 1891, she became suddenly ill while operating a sewing machine, and experienced severe pain in the regions of the stomach and liver. She was given morphine and opium, and subsequently a swelling appeared under the ribs of the right side. The patient was admitted to the hospital on September 29, 1891. She was then in fever, with a dry tongue and distended abdomen; she was also rather apathetic. After evacuation of the bowels a roundish enlargement could be felt below the arch of the ribs. It was sensitive to the touch. There was no icterus and the feces were of normal color. The urine was normal.

There were slight evidences of septic infection, such as the dry tongue, quick pulse, and apathetic condition.

On October 2, 1891, a transverse incision was made, parallel to the arch of the ribs. The edge of the liver lay deep in the abdomen, and under it the tensely distended and fibrin covered gall-bladder. On the left side of the gall-bladder there was a discolored patch about the size of a fifty cent piece. The organ was then punctured, and found to contain a putrid fluid. It was then stitched fast to the peritoneum at the abdominal wound, and the necrosed portion covered with iodoform gauze. Incision allowed the evacuation of a large quantity of yellow pus, and three cubi-form stones varying in size from 1 to 1.5 cubic centimetres. The one stone was found wedged in the cystic duct, and after its removal the clear yellow gall made its appearance. The gall-bladder was now rinsed out with a $\frac{1}{2}$ per cent. lysol solution, and a protective dressing applied.

There was a large secretion of gall through the opening in the gall-bladder, but no symptoms of peritonitis. Fever, dry tongue and rapid pulse, accompanied by loss of appetite still continued for about two weeks. The stools (passed after the administration of castor oil or calomel) were partly colored and partly gray. From October 5, there was general icterus.

The prognosis was doubtful for a long time; there remained the possibility of the presence of pus, but repeated punctures resulted negatively.

From October 12, the patient was

given luke-warm baths daily, and her condition improved from that time. The tongue became moist and the appetite picked up. The necrotic portion of the gall-bladder sloughed away.

On November 14, the gall-bladder fistula was plastically closed, and healed well. The patient reported in good health during the first part of January, 1892. From the putrid contents of the gall-bladder pure cultures of the *bacteria coli commune* (Escherich) were obtained.

Cholelithiasis; subphrenic abscess; incision, after resection of the eighth rib; empyema of the gall-bladder; abscess of the liver; incision of the gall-bladder and liver; occlusion of the choledochus duct; cholecysto-duodenostomy; recovery.

CASE XI. Mrs. G. forty-eight years old. During the youth of the patient she had suffered occasionally with "stomach cramps." She was taken ill during the latter part of December 1890, with pain and swelling in the region of the liver. These symptoms gradually increased until on January 10, 1891, they became unbearable, tearing pains. The patient was admitted January 11, 1891.

The liver dullness reached to a level with the navel, and upwards to the fifth rib.

On January 17, the liver dullness had extended upwards to the third rib, and at the back to the angle of the scapula.

On January 19, punctures were made on a line with the mamma in the fourth, fifth and sixth intercostal spaces, and a stinking pus evacuated.

The eighth rib was resected in the mammillary line; the pleura opened, and an iodoform gauze tampon carefully inserted; then the diaphragm incised and a large quantity of fetid pus evacuated. A slight exudative pleuritis resulted, and the abscess became rapidly smaller. The pain continued at the border of the liver, and the fever remained.

On February 3, puncture of the protruding liver revealed pus. An incision was made parallel to the border of the ribs, the gall-bladder opened and a quantity of pus and twenty-six stones evacuated. An abscess in the liver, to the left and above the gall-bladder was also opened. The fever now gradually grew less. At first the discharge of gall was but slight, but on February 19, it grew to be consid-

erable. At the same time the stools became clay colored. The free discharge of gall continued in spite of the plugging of the fistula. The use of Karlsbad salts increased the secretion.

As the patient became much emaciated, having lost twenty-eight pounds since the first of January, on May 21, 1891 the operation of cholecysto-duodenostomy was performed. A transverse incision was made at the border of the ribs, and from the middle of this a longitudinal incision reaching ten centimetres downwards. The gall-bladder was found firmly adherent to the mesentery, colon and duodenum. The choledochus duct could not be laid bare. The duodenum was then stitched fast to the gall-bladder, and both organs incised. The edges of the incision were then sewed together. The application of the suture so deep in the abdomen proved most laborious, but was successfully accomplished. The old gall-bladder fistula was then closed by suture. An iodoform gauze tampon was then inserted and the abdominal wound partly closed. In the evening the patient vomited a yellow fluid.

On March 26, the faeces became normally colored. The abdominal wound healed by granulation without complication. A stubborn bronchial catarrh delayed the recovery. Subsequently several sutures from the fistula sloughed out of the wound.

The ultimate results were complete recovery, and large increase in weight.

Cholelithiasis; occlusion of the ductus choledochus; cholæmia; cholecystotomy at two sittings; later cholecysto-enterostomy at two sittings; death.

CASE XII. H., male, 54 years old. The patient had been ill since the Christmas of 1889, suffering from gall-stone colics. Icterus since the middle of May, 1890.

The patient was admitted July 14, 1890, with symptoms of severe cholæmia, intense icterus, chills, and attacks of colic. The faeces mostly acholic. The general condition of the patient was unfavorable in the extreme.

Diagnosis: Occlusion of the choledochus through stone or malignant tumor. In the region of the gall-bladder a growth could be felt at the margin of the liver.

July 29, 1890, cholecystotomy at two sittings.

The incision was made parallel to the margin of the ribs. The enlargement proved to be a cyst in the right lobe of the liver. The gall-bladder was small and strongly adherent. No stone could be felt. The gall-bladder was then stitched to the abdominal wound, and subsequently opened on August 4. After the second day there was a free discharge of gall. Twice the patient had chills, accompanied with pain in the liver, and high fever, but after that the course was non-febrile. The stools were for the most part entirely acholic, but occasionally traces of gall could be seen. The urine was of a light color, and free from gallic coloring matter. The appetite improved.

In spite of a most nutritious diet the patient continued to lose flesh, and after much persuasion agreed to submit to the operation of cholecysto-enterostomy. The first part of the operation was performed on September 29, 1890, and the gall-bladder fastened to the colon. A longitudinal incision was used, close to the rectus muscle, and from this incision another careful search for stone in the choledochus was made; but in vain, for the adhesions were so many and so firm that it was quite impossible to lay bare the choledochus duct.

The second part of the operation was performed on October 3, 1890. The intestine opened, and sewed to the gall-bladder. Iodoform tampon inserted in the abdominal wound. The patient continued to lose flesh; a few stitches cut through and feces were discharged through the wound. Death occurred on October 6, 1890, from gradual collapse.

Autopsy: Peritoneum entirely smooth and glistening. Transverse colon adherent to the gall-bladder. Dense adhesions surrounding the gall-bladder, including the cystic, hepatic and choledochus ducts. No stone to be felt. Liver and neighboring organs removed; and the choledochus followed from the duodenum, and finally a stone the size of a cherry found in the choledochus close to the opening of the cystic duct.

Cholelithiasis; Dropsy of the gall-bladder with beginning empyema of the gall-bladder. Occlusion of the choledochus duct; suppuration of the liver; cholecystotomy at two sittings; death.

CASE XIII. Mrs. B., fifty years old. For three years past she had suffered from frequent cramp-like pains in the regions of the liver and stomach.

On the 31st of October, 1890, she was suddenly seized with severe chills, fever, pain in the region of the liver vomiting. There was intense icterus.

On November 3, the patient was greatly collapsed, her tongue dry, "sensorium" affected, and highly icteric. The abdomen was distended, and painful to the touch over the region of the gall-bladder, which latter organ was distended. Cholecystotomy at two sittings was performed.

On November 3, the first portion of the operation was undertaken. The gall-bladder, which was strongly adherent from below, was laid bare; it was impossible, however, to lay bare the choledochus duct on account of the adhesions. No stone could be felt. The gall-bladder was then stitched to the abdominal wound, and was opened on November 6. A light yellow gall was evacuated, and a few pus corpuscles, but no stones. Neither could any stones be felt in the cystic duct with the sound.

The temperature of the patient fell greatly, and she continued afebrile. The sluggish sensibilities were not improved and the icterus continued in spite of the discharge of gall.

Death occurred on November 16.

Autopsy: Peritoneum smooth and glistening. Dense adhesions at the under-surface of the gall-bladder. Even now no stone could be felt. The liver and neighboring organs removed and the gall-passage traced from the bowel, and a stone the size of a hazelnut found at an ulcerated part of the choledochus duct, close to the opening of the cystic duct. In the liver multiple abscesses were found, containing small gallic concretions.

(To be continued.)

PILOCARPINE IN DERMATOLOGY.

Employed hypodermically, pilocarpine has proven useful (Simon, in *Br. Med. Jour.*) in case of chronic eczema which had resisted baths, arsenic and iodides. One case was completely cured by 110 injections administered within as many days. The remedy is without effect in psoriasis, and seems contraindicated in subacute forms of eczema.

Communications.

ASTHMA: ITS INTRANASAL ORIGIN
AND SURGICAL TREATMENT.*

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A few years ago and this subject was the talk of the rhinological world, being taken up on all sides with great avidity. As a result of this ardor much hasty work was done and conclusions drawn, and it seems now quite fitting that, with enthusiasm tempered by time and with the calmer judgment acquired by judiciously estimating results, we weigh matters pro and con, endeavoring to get at the exact truth. The question might then be put somewhat in this way: Are the present ideas which connect bronchial asthma in its pathology and causation with certain existing diseased conditions in the nose correct, *i.e.*, borne out by demonstrable facts? Secondly, do the results of the treatment, having in mind the relief and cure of these same nasal troubles, warrant their further continuance?

The endeavor will be to bring forward positive evidence in favor of above theories and to let the results of treatment as detailed by the author, after outlining the nature and methods of carrying out the same, speak for themselves.

In attacking the first part of the problem, let me carry you back into the history of its progress and development, for on such an occasion as the present anniversary, one is justified in referring to the past, that he may the more accurately portray the present. Something like fifteen or twenty years ago Voltolini reported some cases where, after the removal of nasal polypi, the asthma from which the patients suffered was relieved, and in one case permanently cured. Following the record of these cases numberless reports from various sources came to light and soon every specialist, at least, was bringing to light his achievements. Still further impetus was given to investigation and experiment by the results obtained by certain observers in the treatment of hay fever and hay-

asthma by removing all the pathological conditions in the nose. The impetus thus given was tremendous, but soon a reaction became apparent, a revulsion of opinion which is to-day still evident. Especially in proceedings of societies one could see that while not doubting the fact that some cases could be relieved by treatment applied to nose, by no means as many were made to respond to said treatment as appeared in first reports, hence the method was brought into some disrepute. What popular idea does not suffer the same? The radicals, who were quoted as believing that any cases of asthma could be in a measure relieved by nasal treatment, were compelled to take a part of the statement, and the conservatism went along in the old rut worn deep by time, of asthma being a strictly nervous phenomenon, certainly a very non-committal statement. Neither position is tenable, but the latter makes no advance on the old theory of by-gone ages, and leaves us still at the mercy of nervines and potassium iodide.

Taking it for granted that I am understood in speaking of the nasal treatment as meaning those methods usually in vogue, namely, removing obstructions to easy breathing and aiming to attain permanent potency of both nostrils in as nearly equal degree as is possible, these ends being attained by the removal of polypi, cauterizing turbinate and other hypertrophies, and in various ways removing bony obstruction, we need not now attempt to analyze the results of these measures for it will be done later. Neither do I think we shall arrive at the reason for the difference in opinion as to effectiveness in this way, but far sooner in considering and in reconciling the views as to the nature of asthma, and the explanation of the various component phenomena which make up the classic attack of asthma.

There are two general classes of opinion as to the nature of asthma; the conservative which considers the entire affair as a purely nervous, hysterical manifestation, and would treat it entirely as a neurosis, and the radical, which would make it almost altogether a local phenomenon and allow the neurotic element to sink into complete insignificance. In other words, there must be some organic disease present, not merely diseased function. The only organic diseases which have been ex-

*Read before Connecticut State Medical Society, May 28, 1892.

tensively connected with asthma are those of the nasal cavities, and yet even the most radical of those who look upon the nose as *fons mali* make it, the nose, simply the starting point of the attack. This, of course, involves something out of order with the other parts of the respiratory apparatus, and perhaps of the individual as a whole, otherwise every one with nasal stenosis would be having asthma. The attack of asthma itself is generally explained in one of two ways, either that of bronchial spasm, or vaso-motor disturbance, both explanations being as one in the point of narrowing the calibre of the finer bronchi. Having decided which of these theories is the more rational, we shall then by easy transition prove that the nose originates the attack frequently, if not most always, and hence the logical outcome, that we must treat the nose in such cases.

The attack of asthma begins with a sometimes sudden, sometimes gradual feeling of oppression about the chest and a desire to cough. Perhaps there are also symptoms referable to the nose, either preceding this or at the same time, and these are sneezing, free secretion from the nostrils, with stoppage of one or both. Simultaneously there can be heard in the thorax small shrill whistles. As a result of this oppression or of the coughing, the person begins to inspire deeply, finds it difficult to get the air in and so is led to make greater and greater efforts. From the very first there is a marked contrast between the inspiration and expiration. The former always more marked, and resulting from greater effect than the latter, is now very much augmented, while by contrast the expiration is even less than usual and is made also with distinct effort, that is, there is obstruction to both inspiration and expiration. As the feeling of oppression becomes more intense the inspirations grow stronger and succeed one another more rapidly, allowing less and less time for expiration, especially as this is labored. As this continues but one result can be possible, namely, that of distension of the thorax, so that in extreme cases we find the chest walls almost fixed in position of full inspiration, while the patient still tries to take a little more air into his distended lungs that he may freshen his cyanotic blood. This extremely distressing condition of things lasts a variable time and suddenly or gradually

there is a relaxation, something lets go, a more prolonged expiration is possible, the distension is relieved, and once more the patient has the breath of life within him.

Now, what have we here? Evidently—First, obstruction to the ingress of air into lungs—the oppression first noticed—and this must of necessity be one or another form of narrowing of the finer and large bronchial tubes as evidenced clearly and plainly by the fine whistles which had not previously been present, and later by the wheezing. Secondly, the air when once sucked in cannot easily get out again, something obstructs the egress of air. It cannot get out as fast as it comes in. Probably this latter is due to the same cause as first. Thirdly, as a direct result of one and two we have distension, expiration being at first difficult becomes almost impossible. Fourthly, a cessation of hostilities, that is, relaxation of the obstruction to breathing, always accompanied by a copious discharge from the mucous membranes of bronchi and nose, the relaxation being perhaps dependent on the latter, probably causing it. These secretions are always characterized, whether from nose or bronchi, by certain constituents, namely, asthma or Leyden's crystals, and so-called eosinophilous cells. Curschman has some peculiarly shaped spirals named after him, and other peculiarities have been described, but the first two are almost constant. These same things are present it is true at other times than when the attack has occurred, but are always much more abundant in the secretions, following the paroxysm. These facts involve the existence, first of a specific or asthmatic catarrh of the bronchial mucous membrane and especially nose. Secondly, as a result of above possibly, an irritability of the bronchial muscular fibers, which alone can produce any considerable narrowing. Thirdly, an exciting cause, atmospheric change, late supper, sudden cold, and numerous others. Fourthly, by inference and clinical fact the neurasthenic habit, which renders it possible for the three preceding to concur together.

We have then first to prove that narrowing of the bronchial tubes exists. If this is so, then, as intimated, the rest of the problem can be completely and adequately explained almost from a mechanical standpoint.

Bronchial spasm was one of the earliest explanations offered, but according to previous interpretation proved somewhat inadequate to the perfect clearing up of all the phases of the attack. As a result a new theory was proposed, namely, vaso-motor distension, and by others the first theory was supplemented and was supplanted by spasm of the diaphragm. This latter while not even necessary to help out the first, certainly as a complete explanation can be excluded without further discussion, for first, chronic spasm of the diaphragm only occurs with general tetanus; clonic spasm only in hysterics or by singultus. Secondly, who ever heard of an attack of asthma beginning with spasm of the diaphragm.

Have we any definite proof that bronchial spasm does exist in these attacks? First, we have the very important fact that there are muscular fibres in the bronchial tubes down to the very ends of the same, and that the contraction of these fibres does narrow the tube. Secondly, that such spasms do occur at other times in other parts of the body is sure, and I need only instance intestinal colic and stricture, as evidence. Then there must be some obstruction to the entrance of the air into lung, which did not previously exist, and which is bitterly complained of by the patient, indeed it is the first thing he notices. At the same time comes the shrill whistles in the chest, which can be explained only on the theory of air going through a small place, hence a smaller place than existed before they were heard, *i. e.*, a narrowed bronchial tube. Edinger and Riegel also long ago proved that stimulation of the vagus made the pressure in lung lobule or bronchial tube greater, and that a bronchial muscular contraction could be produced experimentally. Now, all of these facts receive still further proof in the experiments of Lazarus. Not satisfied with simply finding that pressure rose in the tube, he showed that in an animal that was apnoeic and curarized, in which artificial respiration was being kept up, that a distinctly greater resistance to the entrance of the air into an air-tight lobule existed when the peripheral end of a cut vagus was stimulated. It requires a very slight current indeed to make a variation in the mamometer. This, of course, must be due to narrowing of the bronchial tube. To exclude the other causes he injects

into muscular tissue atropine, so that the stimulation of the vagus cannot affect the heart, and thereby excludes any vaso-motor influence, and he gets the same obstruction to the air current. Another interesting point was that by applying electricity to the interior of the nostrils with vagus intact, an exactly similar effect was produced upon the mamometer, thus proving that irritations in the nose can have a direct influence upon the bronchial muscular tissue, and that this influence may be to narrow the calibre of the tube. Thus it is plain that the difficulty in getting air into lung lobule and also into chest must be due to spasm of bronchial muscular fibre.

The same muscular contraction must be the explanation of the difficulty in getting the air out of the chest. If a tube is narrowed it transmits the same amount of air with a greater resistance in which ever direction the air moves, in or out, or if the resistance cannot be overcome it transmits less. Our muscles being developed as they are inspiration can be made a more powerful effort than expiration, hence allowing that the amount of time was the same in the two cases, less air could go out than could come in when the inspiratory muscles were working their fullest purpose. Sometimes, however, inspirations heap up one on the other rapidly, then some inspired air of each effort must remain behind and by successive increment we soon have the lungs distended. If this should not suffice, however, to explain all the details, there is still another point. The researches of Miller, as stated in a preliminary report, show us that the lung lobules do not connect, and that the air space connected with any one terminal bronchus is, in proportion to the size of the tube, very great. For instance, the average bronchus ends as a tube about 0.4 m. in diameter. From this three to six openings lead away toward the end of lobule. These are called vestibules, are about 0.2 m.m. in diameter, and have as they leave the bronchial tube a complete ring of muscular fibre around them. They open into the atria, spaces twice as large as themselves, and from each atrium open two or three passages to the air sacs, which are twice as large as the atria. Around the air sacs are the air cells which bud out in all directions from them, each of them being about half as deep as a vestibule is

wide. Now, a simple mathematical calculation will show that even by flat measurement we have a space at least 12 to 20 times greater than the normal opening is from the bronchus to one of its vestibules, and 30 to 100 times greater space than the bronchus itself. Now, narrow this bronchial tube, make the openings from it by virtue of their own little sphincter of muscle also smaller, make your inspiration powerful to distend them thoroughly with air, then think what resistance these small openings will present to the air coming out. As the distension increases the openings may become pressed upon and narrowed still more, and as one inspiration follows on the other faster or deeper than ever, urged on by the stimulation of blood in the centers of respiration, we must have a balloon-like distension of the lobule and the impossibility of the chest walls collapsing as they should. If the spasm lasts long and is great, think how much these thin-walled spaces must become distended, the walls themselves stretched by the pressure of the chest walls, and is it any wonder that the confirmed asthmatic is found to have dilated vesicles and seems to have as a result but little motion to chest. Certainly abundant testimony tells us of the distension which must be due to air not getting out.

The relaxation of such a spasm may, of course be very gradual or sudden as was the onset. The simple relaxation allows the air to go out, the stagnant air in the lobules has a chance to be oxygenated, the inspiration becomes less forced, distension diminishes, and abundant discharge becomes evident both in nose and lungs. Here is where the vaso-motor men claim that the present theory is weak, but action and reaction are equal and in opposite directions. Certainly as regards the lungs we need no vaso-motor help. During the period of spasm there could not be free circulation, the walls of the capillaries would be relaxed, and when the change came what could be easier than transudation? And the secretion is very clear and frothy. To bring about the nasal secretion at the end of the attack, as also to connect the initial step in the attack from the nose and bronchial membrane, we have the experiments of Lazarus to help us out. But nevertheless a little vaso-motor influence must come in. Yet while granting this, I cannot see how any

further effect can be laid to the door of the vaso-motor system. To suppose that by the slight narrowing of the tubes which would result from the distension of the blood-vessels in the bronchial mucous membrane, enough resistance could take place to explain all the phenomena of an attack of asthma is to me an absurdity. Again, why do we not have asthma in mild form by every attack of bronchitis when this latter is seen. Surely the blood-vessels are congested and that continuously, and if narrowing ever takes place from that cause it should be then. And again, to the best of my knowledge and belief it has never been demonstrated that the bronchial mucous membrane contains any such rich plexuses as would be necessary to produce any essential narrowing of the tubes by their engorgement. Even the later researches of Miller leave it doubtful, although he distinctly states that there is a rich capillary net work directly under the mucous membrane of the finer bronchioles. The venous radicals immediately leave the surface, gather into larger trunks, and then empty into the pulmonary veins, so there is not the interlacing of venous trunks near the surface which we more commonly find when a mucous membrane is distensible. Hence it would seem that the only use to which we could put the unquestioned association of reflex influences in the vaso-motor systems of the two places is to explain the initial step in the attack. Those who attach more importance to the various peculiar constituents of the sputa, the asthma crystals, and the eosinophilous cells, would reason that they perhaps indicated a peculiar form of catarrh in both nose and bronchi. Beginning in the nose perhaps there would be a vaso-motor disturbance which would lead to the secretion of these various materials there. At the same time these occur as a result of the same secretion in the bronchial tubes, and we have the irritation produced which brings on the bronchial spasm, the vaso-motor system being the link. When the spasm lets go at the end of the attack, free transudation takes place and the irritating particles are washed to the surface, while a similar event also transpires in the nose; vaso-motor system again the link. This puts a strong dependence upon the nose to start the attack. The nose is, of course, more exposed by its position than any other part of the respiratory tract,

hence more open to all irritating particles which come in contact with it. It is to be demonstrated beyond doubt that in the case of hay asthma, that the changes in the nose produce and precede the attack of asthma. Therefore, it is possible for a nasal lesion under proper conditions to produce or to initiate the impulse leading to an asthmatic attack, and, of course, if it can do it in this case, there is nothing wrong in the supposition that perhaps in most cases of asthma connected with nasal disease, the same may be true.

We have assumed that there is a sort of specific catarrh of both nose and bronchi, for we have the matter spoken of as always present both in and before an attack. Personally I have examined a few of these cases, and hope to do so to more, and have always found an asthmatic to have more eosinophilous cells present in his sputa than is usually the case in other catarrhal conditions, some apparently identical in appearance. If the blood is examined in these cases we also find more eosinophilous cells than the normal, although they are not found exclusively by asthmatics.

In a young man at present being treated for mucous polypi, these same cells were abundantly present in the nasal secretion. During the course of the treatment he caught cold and had a slight bronchitis. When almost over this he came to my office and was operated on by removing a few polypi. His bronchitis immediately became worse as the reaction following the operation started up in the nose, and he had his first attack of asthma. His nasal secretion examined at that time, as also blood, showed many eosinophilous cells, more than he had before or has had since, and he has had other apparently equally severe colds with coughing and expectoration. Here is an indication too pointed to pass. First, the nasal disease existed with its altered secretion of a certain type; secondly, operating on the nose still further altered the secretion and blood as well, coming at an unfavorable time, and then he had his asthmatic attack, having previously acquired an irritable condition of the bronchial mucous membrane.

Now, while it cannot be said that the nasal disease always must previously have existed in order to bring about the condition necessary to produce the asthmatic attack, certain it is that such is frequently the case, and that in almost every case of

asthma the nose is somewhat diseased. Secondly, as there is surely the nasal phenomenon beginning an attack of hay fever asthma, brought about by the pollen of the certain plant which produces it in the individual case, so also could it be possible that an atmospheric influence on a diseased nasal surface might produce an altered secretion, or might of itself be sufficiently irritating to start vaso-motor disturbance. Then either in this way or by the direct nervous reflex, as in the experiments of Lazarus, the bronchial mucous surfaces take up the disturbance and we have the attack. Further we can clinically bring on an attack of asthma by irritants, chemical and mechanical, applied to the nose and reversely stop attacks by cocainizing the nostrils. This is not to be understood as saying that every attack begins with the nose, for a late supper, or any other indiscretion of diet may be the source in some instances, but granted that most of the disturbances must be in some way connected with atmospheric conditions as would seem to be the case in that they seem to come by changes of weather, at a certain time of day or season of the year, then it is rational to suppose that the nose would get the first impression, and hence that this impression might originate the attack. To trace the exact nerve tract will be difficult for the experiments of Lazarus only prove that the pneumogastric plays some part, although, as just stated, it proved that it could produce in some way contraction of the bronchial fibres. Then, is it also mere chance that only certain classes of troubles of the obstructive and vaso-motor order occur in these cases in the nostrils; that the certain crystals and cells are present in the secretion both nasal and bronchial; and that in the case of the eosinophilous cells they are present in the blood of the patient, and are more numerous in the secretion at times of attack than otherwise? The exact answer to this latter point is not yet possible, but does present many interesting possibilities.

Confronted then with the facts, which I beg to bring once more before you, namely, that of the unquestioned connection of the hay fever nasal symptoms and the existing asthma, of the physiological experiments of Lazarus and others, of the position of the nose so clearly first to take the changes of atmosphere and the brunt

of many irritations, and the clinical fact that many of the noses in cases of perennial asthma are unquestionably diseased and in all there exist altered secretions, as also in bronchi and an altered blood, would it then be any severe stretch of imagination or reasoning to say that there might be a possibility that the severe nasal disease existing in any case of asthma might be the cause of the trouble? Not the only cause, perhaps, but sufficiently so that when the nasal trouble is removed the attacks of asthma would cease? And if this latter is the case may we not hazard the statement that bronchial asthma may be an intranasal disease, in the same sense that we might say that many ear diseases are intranasal, catarrhal diseases, for although local lesions exist there, still they are due to the previously existing nasal trouble, are produced by it, and cannot be cured until the latter is removed?

It would at this juncture be a pertinent inquiry: How many asthmatics came under this head? Very many indeed in the sense that the treatment was eminently successful in helping them, yes in curing them.

Ever since beginning practice, I have been steadily at work on various cases, accumulating observations and ideas on these points, somewhat unmindful of the work done by others. Lately a number of writers have presented tabulated statistics of cases, and showed a large number of cases cured and relieved by treating the nose. And curiously enough, I, who had not been a very great enthusiast, find my percentage of "cures" to be nearly as great as the most sanguine. Before giving any figures it might be well to define what cases are to be considered cured. We are treating the individuals for asthma and nothing else in this estimate, and we consider a person cured of his asthma who has none of his sharp, asthmatic attacks for a period of a year or greater. We do not feel ourselves as vitiating the statistics when we also consider a person cured of his asthma who may still possess the chronic bronchitis so frequently present in these cases, and who may be heard to wheeze a little after a hard coughing spell, or other severe muscular effort. As "relieved" we shall, of course, make two classes, those nearly cured and those but little benefited by treatment. A fourth column of failures will also figure in the description.

Dr. Bosworth gives in his book an exceedingly interesting tabulation of eighty cases of asthma treated for the relief of the nasal trouble, thirty-four were hay asthma, forty-six perennial asthma. Of these, nineteen of the first were cured, and fourteen improved; of the second, twenty-eight were cured, and twelve improved, so that out of the whole eighty only seven were not benefited by the treatment, and of this seven there were five cases in which the result is unknown. So that classing these last with the unimproved, and we still have a large percentage of improvement, forty-seven of the eighty cases were cured. This was in 1888, and in 1891 he could say that he felt quite confident that in but six of them marked "cured" have relapses occurred, and in none of them are the present attacks as severe or as frequent as the previous ones. Since then he presents tables of eighty-eight other cases of asthma, in eleven of which results are unknown. Of the seventy-seven, who were thoroughly treated, forty-two were cured, thirty-three improved, two unimproved, figures surprisingly close to the first ones reported.

I have to add to these figures the modest number of twenty-nine cases, twenty-three being perennial asthma and six hay asthma. Of the first, thirteen have been cured, five have had no attacks since treatment was well under way, but have not been long enough immune to be classed as cured. Three were improved, two unchanged except that their catarrh was better. The hay asthma was half improved, two cured, and one suffered very slight relapse last year. Of all cases which have applied for asthma during the time covered by the rest, in only two or three did I find nothing sufficiently wrong in the nose to consider it justifiable to operate. It will be seen from these figures that the results are very nearly the same as those previously reported, and as they were made entirely independently and without previous strong prejudice, as well as carefully compiled, their testimony is when taken with the others such that "he who runs may read."

In all of the above cases within the experience of Dr. Bosworth and myself the nasal treatment was undertaken with the idea of relief and removal of some form of obstructive lesion in that cavity. My

own cases have presented a larger majority of polypi than any other single lesion. The others were either cases of simple but severe hypertrophies in various parts of the nostrils, or the same resulting from or complicating bends of septum or other bony deformities.

The mucous polypi make necessary the most varied and complicated methods of treatment, for in the end to remove and thoroughly eradicate the same one frequently has to do all the usual operations which we perform in the nose. First, we noose the growth out with snare, removing every portion possible, and ransacking every nook and corner for a hidden mass. Having done this thoroughly we then cauterize the places where these polypi grew, as also all other hypertrophies. If there is any bony projection which is so great that by the simple swelling which must take place in the turbinate tissue during atmospheric changes, contact is brought about, then that must be removed beyond such a possibility. This rule is observed in all this class of operations. If, after these things are done and the polypi do not return, we have produced no relief to patient, but little more can be done to ameliorate his condition except the older methods of treatment. The main point, however is to see to it that the polypi do not return, for almost as surely as one is found large enough to exercise any pressure in the nose, just so surely there will be a return of the asthma. Conversely, your patient may and very frequently does not get any relief to his asthma until every vestige of polypoid growth has been removed.

Simple hypertrophies are cauterized until the same changes spoken of before fail to produce any points of contact with the septum or other parts of the nose. Simple hypertrophies are found, be it remembered, not only on the turbinate bodies, but also on the septum, and these are particularly liable to be very sensitive. For cauterizing I always use the galvanocautery.

For removing bony projections the saw, chisel, and gouge or burr, have proved ample to the end of establishing proper freedom.

When the operations are done as well as also during the entire interval of their performance, the patient is directed to keep the nasal passages thoroughly clean

by simple salt solution, or Seiler tablets, the same being followed by some alkaline and anti-septic powder. This is kept up until all catarrh has been reduced to a minimum. But do not suppose that all this time the other portions of the patient's system are being entirely overlooked; far otherwise. In all cases where owing to long standing the bronchial disease has become fixed, the potassium iodide and terpine hydrate, alternately or together, are used to mitigate the cough and to assist expectoration, always being given in free doses. The patients are shielded from colds, directed to take cold baths, and where possible to avoid indiscretions in diet, to lead a temperate life, and finally when the treatment is done, or is futile, if at all possible, a change of climate is advised—the last step. Hay fever patients particularly are sent away during the dangerous period, and are put into as near opposite condition to their usual environment as possible. When this latter is done for either kind of asthma, it will avail but little, when nothing more radical is done, for as soon as patient gets back again, the same conditions will be operative that previously were, and the asthma will return.

When all the above means fail, then we have simply to make life as easy as possible for the patient, keeping down the severity of his attacks. Here, as in the attacks the patients have during treatment, considerable can be done to relieve the distressing spasm by burning some of the various forms of either pastille of prepared paper which have all the most useful elements, potassium nitrate and stramonium or belladonna leaves or both. Morphine is the one drug that is at all efficient in diminishing the spasm, although much may be done with chloral hydrate and bromide. A confirmed asthmatic is exceedingly liable to become an opium taker. Of the newer drugs prepared, I know nothing from individual experience. May I then give in closing a single case which will illustrate the main points of treatment and result.

M. B., aged 27, consults me concerning his catarrh, which has been very severe during the last few years, and which occasionally stops his breathing through the nose. Lately chest has troubled him, and his breathing has become short. Very lately some asthmatic attacks, occurring

once every twenty-four hours at night. Such reads the record of April 17, 1890. On examination of the nostrils found mucous polypi in large numbers in both nostrils. Treatment was immediately begun, and on October 30th we had the nose entirely cleared out. The attacks of asthma ceased some weeks ago, and remained away for two months, patient being during that time quite negligent, in spite of warnings, because he felt so well. He was gaining in health and strength, the latter having been much reduced by the loss of sleep occasioned by his attacks.

On December 12th, he again returned, having had several very bad spells, the worst being one night after a wine supper. Several new growths had begun to appear, and when they were thoroughly removed the attacks immediately ceased. He then had another respite and later, January 30th, started for a trip West, notwithstanding the fact that in two places there were still unreduced "polyp-rests" present. He reached Buffalo and was attacked with asthma. Turning back to Syracuse where he had friends, he consulted a specialist there, who kept him under constant attention, but things went from bad to worse, until he was having several attacks daily, some of them of extreme severity. He then made up his mind to return to New Haven and did so. I found numerous masses had developed on the old "breeding ground," which we had not thoroughly reduced, and as soon as these were removed his attacks ceased, he having only one attack after operation of the first day. Still he did not get entirely in order before he ceased his attention, and he has had two or three short spells of asthma since, each terminated by the removal of the diseased tissues. He is still unregenerated, is at present in one of his periods of respite, and therefore had to be put in the "relieved" column in our estimate of results, although he could be surely cured.

The above case is one of many of those whom we classed as being only "relieved," and shows in short the results of treatment, the necessity of the most thorough measures, and the reason why more cases are not perfected.

I feel, therefore, justified in the light of the facts with which I have burdened you well-nigh to exhaustion, in stating that we have fairly demonstrated that there is a causative association between certain nasal

diseased conditions and bronchial asthma; secondly, that the results of the treatment of these conditions contribute as much to the relief and cure of the asthma as any other single method of treatment now known, and very nearly as much as all others put together.

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HYDROCHLORIC ACID IN THE TREATMENT OF VOMITING.

Dr. Alkiewicz, writing in the *Nowiny Lekarskie*, mentions that in various kinds of vomiting he has found great benefit from small and frequent doses of hydrochloric acid, well diluted, of course. In one case of the vomiting of pregnancy, where none of the ordinary remedies had any effect, hydrochloric acid proved successful, though it had to be given for a fortnight before it entirely arrested the sickness. In more than ten cases of cholera nostras in adults, with vomiting, hydrochloric acid was given with good results. Again, where vomiting was due to acute dyspepsia from errors in diet, and where it occurred in the course of influenza, scarlet fever, or other contagious diseases, the same remedy proved equally efficacious.

—*Lancet*.

THE MECHANICAL TREATMENT OF TRACHOMA.*

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The importance and dangers of trachoma, or true granular conjunctivitis, as a cause of suffering and blindness, and its spread by contagion, were well presented by Dr. J. A. Lippincott, in the address on ophthalmology, last year. An important factor in its transmission is its extremely chronic course. I have in mind a case which I saw and treated from time to time for ten years, the patient attending for a time, then getting weary and neglecting treatment for awhile, and anon returning with the cornea distinctly more damaged; and during the whole of this period this patient was a possible centre of infection to those about her. And such cases are not exceptional, but extremely common.

It is rather exceptional to have a patient persevere steadily with treatment until the cure is complete. Last year I remember but a single case in my service at Wills Hospital who persisted steadily to the end, coming much of the time three times a week for applications of copper sulphate, and who was finally discharged completely cured just about a year after the treatment was commenced. There is still attending my service at the Polyclinic Hospital, for occasional applications, a girl who has been under pretty steady treatment with astringents for four years; and who is now about cured with some shrinkage of the conjunctiva. And during these protracted periods we have to deal not with sequellæ but with the active disease running its characteristic course. I cannot recall seeing a case of well-marked trachoma, even when taken early, that was thoroughly cured by applications of copper, alum, silver, and tannin in less than three months. Yet such treatment has been, and still is, mainly relied on for the radical cure of this disease.

In contradistinction to this, attention should be called to the results of mechanical treatment. Many attempts have been

made in this direction, such as incising the trachoma granules, the little sago-like gray translucent masses that crowd the retro-tarsal fold and are scattered over the palpebral portion of the conjunctiva. Others have excised them, sometimes removing the whole retro-tarsal fold, greatly abridging the course of the disease, but also leaving a contracted conjunctival sac.

Others, led by Manolescu, had resorted to grattage, or brossage, scraping the whole conjunctival surface, or brushing it with a tooth-brush, the bristles of which were cut short to stiffen them, with or without the application of strong solutions of mercuric chloride. This latter method, if thoroughly applied, is effective in promptly cutting short the disease, but leaves such cicatricial contraction of the lids that its adoption seems scarcely justifiable.

In 1886 Dr. F. C. Hotz published his method of expression, which it is since claimed had also been practised many years before by Sir William Wilde and others. He pressed out the granulations from the upper lid and cul-de-sac with the thumb-nail, and from the lower lid by the aid of iris forceps, from which the corrugations had been ground off. This operation he urged could be done without a general anæsthetic; and he claimed that it greatly shortened the treatment of the most tedious cases, those with well-marked trachoma granules. I tried it, as did doubtless many others, under cocaine anæsthesia, and probably on account of failure to thoroughly express the contents of the granules, was not very much impressed by the method. Others, notably Drs. A. E. Prince and H. D. Noyes, devised forms of forceps for the operation, and practiced it with greater success.

Something over a year ago Dr. H. Knapp resorted to the roller principle, such as is applied in the common mangle or clothes wringer, to the expression of the trachoma granules, and devised a pair of roller forceps, here shown, for the purpose.

His results were extremely satisfactory, the mass of cases being cured by a single operation, often without necessity for subsequent treatment, and without cicatrices due to the operation. He reported them at the meeting of the American Ophthalmological Society last September, and they have been so far confirmed in the ex-

*Read before the Medical Society of the State of Pennsylvania.

perience of others who have tried the method that it should be adopted for all suitable cases.

The method of performing the operation of expression with this instrument is as follows :

The patient being fully etherized one of the lids is everted. In everting the upper lid I fold over the tarsal portion in the usual method of everting the lid, then seize the folded margin and withdraw it from the globe, at the same time everting it and fully exposing the upper cul-de-sac of the conjunctiva. The forceps are then thrust well into the cul-de-sac and as large a fold of the conjunctiva as possible is firmly grasped between the rolls. Firm pressure is then made and the rolls steadily withdrawn. As this is done the material composing the trachoma granules in the portion of the conjunctiva so grasped is seen to ooze out from the tissues on the rolls until the fold escapes from the forceps freed of this morbid material. A second portion of the conjunctiva is then grasped and similarly stripped, and this



is repeated throughout the conjunctival tract.

Especial care is to be given to the thorough cleansing of the parts of the membrane in the vicinity of the commissures, this being the most difficult part of the operation. The squeezing of the portion of the membrane lining the tarsal portion of the lids near their free margin is best accomplished by placing one roll on the conjunctival and one roll on the dermal surface of the lid, and drawing them up to the free margin of the lid.

In this way every portion of the conjunctiva is to be gone over two or three times until no more of the morbid exudate can be squeezed out. The conjunctiva is then to be cleansed of blood and exudate, and the after-treatment is to be directed to prevent undue reaction at first, and subsequently to prevent relapses.

The effect of this operation is at first to cause oedema and swelling of the lids, which gradually subside, leaving the favorable cases cured, with no more cicatricial contraction than was present when this

treatment was resorted to. Indeed, in those cases in which there has occurred very marked cicatricial thickening and induration of the lid, the induration disappears entirely, and while there is later a tendency to its return the ultimate result appears to be a very marked permanent benefit.

The amount of benefit, however, is in general proportioned to the amount of the characteristic exudate present in and beneath the conjunctiva. Where this is the leading feature of the case the cure is immediate and, so far as I have been able to observe, permanent. But it is remarkable how much of this translucent jelly-like material can be pressed out of some thick indurated lids, that give very little evidence exteriorly of its presence.

In the favorable cases, those in which the granulations are well marked and the general induration and alteration of the deeper structures of the lid comparatively slight, a single rolling is sufficient. In the less favorable cases, those in which there is more induration and thickening,

Dr. Knapp advises the free incision or scarification of the lid prior to rolling. In these cases, including the worst that

I have encountered since resorting to this method of treatment, there was marked improvement after the operation, and it was repeated with still further improvement.

I have done the operation under cocaine anaesthesia, where the granulations were localized in a limited part of the conjunctiva, and the patient greatly preferred not to take ether. But the cases in which it is advisable to do it are quite exceptional, for without general anaesthesia the squeezing will not be thoroughly completed in every part of the conjunctiva, and it is only the thorough expression that produces the cures, which seem truly marvelous when compared with the results of older methods of treatment.

A word about the selection of the instrument: the essential point is that it should roll easily. This is first to be tested by seizing with it the fold of skin between the fingers, and noting if the rolls properly turn under very light pressure, and do not slide over the surface without turning. To ascertain if their motion is uniform grasp a piece of paper firmly between the rolls

and pull it out while firm pressure is maintained. If then the rolls are at all irregular in outline, or not properly centered, the movement will be found decidedly jerky instead of smooth and uniform as it should be. In using the instrument one must watch that it does not become clogged with blood and exudation and cease to roll, simply dragging over the tissues, for this does not as effectually empty them of the trachomatous matter, and is liable to cause tearing of the conjunctiva.

The corrugated rolls were adopted by Dr. Knapp, I believe, for the purpose of more certainly securing their rotation. I have also used smooth rollers with which it is essential to have the bearings work with perfect smoothness, but which, when they work perfectly, we would expect to empty the tissues more completely and with less bruising. It may be questioned, however, if a certain amount of bruising, enough to secure the free outflow of serous exudate, practically washing out the trachomatous matter as the tissue is gone over the second or third time, is not an important part of the treatment. So that on the whole the corrugated rollers are probably the better.

In conclusion, let me urge all who may have to deal with trachoma in its marked and characteristic manifestations, to put the patient under ether and roll the lids freely, squeezing out all the exudate possible and going over the whole conjunctiva two or three times.

Do not fear the apparent violence done the tissues. If the rolls turn properly, you cannot tear the conjunctiva; you will preserve all the epithelial surface there is to start with, and secure the minimum of cicatricial contraction. And in favorable cases a cure is accomplished by a single operation, sometimes without after-treatment.

CHLORIDE OF GOLD AND SODIUM IN PROGRESSIVE GENERAL PARALYSIS.

Boubila, Hadjes, and Cossa (*Annales Medico-Psychologiques*, January to April, 1892) state that this agent has no curative influence in general paralysis, but is useful in the early period, increasing the chances of remission, and in the later stages it tends to retard the fatal termination. Its administration is followed by an increase of red corpuscles and of body-weight.

A CASE OF OPERATION FOR CLEFT OF THE HARD AND THE SOFT PALATE, AS PERFORMED

BY DR. R. W. WHITEHEAD.*

By GEO. HOMER GIBSON, M. D.,
DENVER.

On May 19, 1879, I witnessed an important and difficult operation for cleft of the hard and the soft palate by Dr. R. W. Whitehead. Frequently this operation results in failure, and the excuse is that the patient coughed or sneezed or vomited, or did something else and the stitches tore out. Dr. Whitehead emphatically stated before the operation, that if the muscles are completely cut and the sutures are properly placed and secured, that all the coughing and sneezing and vomiting will not cause the sutures to give away. I believe it. Those present at the operation were Dr. J. M. Norman, dentist, Dr. H. W. McLanthlin, myself, Miss McCann, nurse, and the father of the patient. The patient was a boy three years of age. In the performance of this operation the stages of procedure may be conveniently arranged as follows: (1) Gag. Dr. Whitehead's gag, as represented in Gross' Surgery and elsewhere. (2) Cutting the levator palati and the tensor palati muscles on each side with angular knives. (3) grasping the palato-pharyngeus and palatoglossus muscles on each side with Whitehead's forceps and cutting them with curved scissors. (4) Paring the edges of the cleft. (5) Making the side cuts and elevating the periosteum, guarding carefully against its detachment at the points of emergence of the superior or descending palatine arteries. (6) Passing the silver wire sutures and twisting as in Sim's operation for vesico-vaginal fistula. (7) Stuffing the side cuts with lint.

On the 14th day after the operation Dr. Whitehead kindly invited me to see the removal of the sutures. The union was complete throughout. The cleft in this case measured in its antero-posterior direction $1\frac{1}{4}$ inches, and transversely nearly $\frac{1}{2}$ inch. For its closure it required six silver wire sutures and two silk sutures, the last two being placed near the tip of

*Read before the Colorado State Medical Society, June 24, 1892.

the uvula. The main requisite for the surgeon in this operation is to bring to his aid a perfect knowledge of its anatomy, including the relations of parts, and a full appreciation of the action of the muscles. It is an operation founded on principles strictly scientific, and is one of the most difficult in the whole range of surgery. Anything less than the most painstaking care of its details will result in failure. Yet a first attempt may be entirely successful, as in Dr. M. Storr's case, related in a letter to Dr. Whitehead, which he kindly showed me, and in which letter Dr. Storr states that he was opposed by the whole of the surgical staff of the Hartford Hospital and Dr. Storr "made one operation and got entire union." Such Dr. Whitehead says he believes will be the result in the hands of any painstaking surgeon of fair ability, who has qualified himself by a sufficient practical study of the anatomy of the muscles and other parts.

LOW TEMPERATURE AND PHTHISIS.

Of all devices which, since its discovery, have been attempted to destroy the bacillus tuberculosis in the body none, perhaps, is more irksome—and, indeed, barbarous—than that of keeping the unfortunate victim of phthisis in a cold temperature, as if the normal temperature of the blood were in the very least affected by that of the atmosphere. Nevertheless, such views are held by the Russian physicians who have the care of the health of the Czar's second son, the Grand Duke George, who developed symptoms of pulmonary disease when on his Indian tour. He has, we learn, been spending the winter at Abbas-Tuman, in the Caucasus, dwelling in barely furnished rooms, with little bedding, only a very moderate fire, and the windows continuously open. No doubt the pure mountain air is the chief agent in the effort to keep the disease in abeyance, and not the cold, which has been so severe that his Royal Highness's attendants have suffered greatly from it; and we trust the hopes of the physicians that the Grand Duke will in two years' time have completely recovery may be realized. Very likely he would have done equally well at Davos or St. Moritz, without a sacrifice of that comfort which phthisical patients so much need.—*Lancet*.

CASE OF ECZEMA VENOUS VARAIX, WITH TREATMENT.

By A. O. STIMPSON, M. D., C. M.,
THOMPSON, PA.

J. S. (an old soldier) has been troubled with eczema venous varaix ever since he was in the army, 1864 and 1865. Since that time his lower extremities have been more or less swollen and painful especially when he was obliged to be on his feet. He is a hotel keeper by occupation, and no doubt is a liberal sampler of his own liquid refreshments. He is a man of 5 feet 11½ inches, and weighs about 187 pounds, a man of very irregular habits, an Englishman and of apoplectic tendencies. I have known the man for twelve or fifteen years but have never been called upon to treat him until June 14th. At 5 o'clock A. M. on June 14th, 1892, I was called up in haste to attend him. The messenger informed me that he was bleeding profusely from a ruptured artery on his leg. I hurried up to the house and found him lying back on the sofa in a semi-exhausted condition from the hæmorrhage which had indeed been profuse, as pools of blood lay about the floor where he had sat in the kitchen. On examination I found his left leg in a condition of chronic eczema complicated with large varicose veins. He informs me that within the past six or seven years he has suffered occasionally from hæmorrhage, but that it has always been easily controlled by simple bandaging. I found on examination that the hæmorrhage proceeded from the external saphenous vein, as if an artery had been cut across. I put on a rubber ligature above the knee, washed the leg and wound, then took antiseptic cotton saturated it with tinct. of iron and packed the small opening with it until the hæmorrhage had stopped. Then I made a firm compress of carbolated cotton, saturated it with a forty per cent. carbolic acid solution, then put on a firm bandage of muslin from the toes up to three inches above the knee. I am confident that there will be no further trouble as I put him on a constitutional diet with eight drops tinct. of iron and three drops fluid ex. ergot, to be taken every four hours. The cotton bandage is to be kept on five days and then a Martin's rubber bandage to be constantly worn. Also, after the

five days he is to take five drops of Fowler's solution of arsenic one half hour after meals, *ter in die*, in order to cure his eczema.

EFFECT OF BITTERS ON GASTRIC MOVEMENTS.

Dr. Paul Terray of Buda-Pesth has published on account of some investigations he has recently made, with the view of determining the effect of various bitters on the movements of the stomach. For this purpose he employed the stomachs of dogs taken from the body immediately after the animal had been killed by severance of the cervical spinal cord. Both orifices of the stomach were then tied and the organ was immersed in a bath of water which was at the temperature of the living body and contained in solution 0.75 per cent. of common salt. Where no drugs had been introduced the automatic movements continued for about three-quarters of an hour, after which time signs of death began to appear in star-shaped contractions; and in another half hour mechanical stimuli ceased to produce any response, irritability being subsequently lost, first to cold water, then to the galvanic current, and lastly to hot water. When the animal was kept on a restricted diet for two days, and a quarter of an hour before being killed a dose was introduced into the stomach of some bitter which acts on the peripheral automatic centres of the stomach, the movements were stronger, more rapid, and more persistent—the most powerful drug being gentian, and after that cetrarin and conduragin; then there came taraxacum, quinine, and lastly quassia. The irritability of the stomach to mechanical stimuli was increased by gentian, taraxacum, quassia, strychnine, and columbine. Small doses of absinthin diminished the irritability, and large doses arrested it altogether. Columbine and strychnine increased the irritability until persistent general contractions were induced. Picrotoxin produced no effect on the contractions, while cetrarin not only set up increased movement in the stomach, but produced a similar effect upon the intestinal movements. From a therapeutic point of view, therefore, it appears that in stonic conditions and moderate dilatation bitters may be given with advantage. Cetrarin, it may be well to remark, acts as an aperient in addition to its effect upon the stomach. —*Lancet*.

Society Reports.

MEDICO-CHIRURGICAL SOCIETY, OF LOUISVILLE.

Stated Meeting July 24, 1892.

DR. THOS. L. McDERMOTT, Vice-President, in the Chair.

THE REMOVAL OF ENLARGED LYMPHATIC GLANDS.

DR. W. L. RODMAN: This young man is a patient that I operated on six weeks ago to-day and reported the case the same night at meeting of the Medico-Chirurgical Society, at the Pendennis Club. He had a tumor in the inguinal region caused by enlarged glands, the mass being as large as a duck egg. I cut down to the glands and dissected them all out. Dr. McDermott assisted in the operation. The operation was done on Friday afternoon and he went to work the following Wednesday. It was one of these idiopathic enlargements; patient has had no venereal disease. I removed eight or ten very much enlarged glands, cutting very nearly down to the femoral artery. By the operation I think I saved this patient at least six weeks suffering, and believe that this is the best way to treat these enlarged glands.

DR. C. SKINNER: I think this case illustrates a point, and proves that these cases all ought to be operated upon in this way. There is no doubt about such cases always going on to suppuration. I believe it is better to remove the glands in the start rather than allow suppuration to take place and then open them. The results in Dr. Rodman's case seem to be everything that could be wished.

DR. W. L. RODMAN: When the operation was performed, the patient was very much run-down in health. He has gained at least ten pounds since being operated upon six weeks ago.

DR. TURNER ANDERSON: I would like to ask about the scar that is so plainly visible now; will it not disappear after a while?

DR. W. L. RODMAN: I think it will go away. This scar would not have been as marked as it is now, if I had not kept the wound packed. I did not want it to heal too soon.

DR. TURNER ANDERSON: What do you think will be the effect upon the lymphatic structures upon which these glands act situated below? That is, will it interfere with their functions in any way?

DR. W. L. RODMAN: I do not see how it would interfere with the channels; the lymph gets back in some way without any doubt. The deeper lymph glands were not removed.

DR. T. L. McDERMOTT: There are a great many glands in this region, and I do not think it is reasonable to assume that they were all removed.

DR. W. L. RODMAN: I removed all the superficial glands.

DR. S. G. DABNEY: In this connection, I would like to ask one or two questions about enlarged isolated lymphatic glands. I saw a case the other day, a young lady, having enlarged glands just back of each ear. There seemed to be no cause for this condition; the lady was otherwise in perfect health. There was no involvement of the cervical glands, but simply the glands just back of each ear were enlarged and quite tender. I would like to ask if there is any reasonable explanation of the appearance of these isolated enlarged lymphatic glands, and what the treatment should be. Also whether the treatment of iodine ointment is of any value.

DR. C. SKINNER: I have always found that we can trace this down to some hereditary trouble; some specific lymphatic engorgement. Cases of this character that have come under my observation, I have put on treatment consisting of a preparation containing bichloride of mercury. They may feel and look all right, but the lymphatic system is out of order, the circulation bad, and the treatment should be with a view of improving these conditions and then the enlargements will disappear.

DR. W. L. RODMAN: I would like to ask if Dr. Dabney's patient had any bad teeth.

DR. S. G. DABNEY: That is a point I had not thought of, and made no inquiries concerning the teeth.

DR. TURNER ANDERSON: Enlargement of the posterior cervical glands is not at all unusual, occurring in an acute form. In the last epidemic of German measles this symptom was present; it was present

in nearly all cases; an enlargement of the chain of glands of the neck was one of the prominent symptoms. I do not think we have any reason to believe that there is anything specific about these enlargements. I believe it is simply acute adenitis, catarrhal in all probability in a great many cases. My experience is that these enlargements go down without any treatment. They occur just as we sometimes see enlargements of the inguinal glands occur in an epidemic way. I saw an epidemic of inguinal adenitis several years ago, a great many cases presenting themselves. We are constantly seeing cases of idiopathic inguinal adenitis.

DR. T. L. McDERMOTT: Concerning the removal of these enlarged inguinal glands—this is a matter that is not pushed far enough by the medical profession. I think that the doctors in ordinary practice, who meet most of these cases, instead of suggesting that they be left to the processes of nature, allowed to suppurate and the abscesses finally be opened, allowed to take their course, they should advise the early removal of all these enlarged glands. People as a rule are not educated to the idea that this is the proper treatment. This young man may be the means of getting a half dozen of his friends to submit to this operation. I believe that the profession ought to take more cognizance of these cases and advocate operation more than they do, and educate people to this idea. The result in Dr. Rodman's case seems to have been all that anyone could wish. I am satisfied if the operation had not been done, the patient would have been coming to my office two or three months, would probably have spent two or three weeks in bed and had the enlargement lanced with a good deal of pain, etc. I think on the plea of economy it would be cheaper for patients to have these glands removed. I believe that enucleation is the only proper treatment, and we should try to educate people to have this done.

DR. W. L. RODMAN: I have been operating in this manner for two or three years.

DR. C. SKINNER: While on the subject of glands, I will relate a case. Some time ago a gentleman brought his boy, about seven years of age, to see me. The whole family history is phthisical, one sister of the mother having died of this disease, and the mother having had two or three

alarming hæmorrhages. This child had an enlargement of the sub-maxillary lymphatic in the right lower jaw midway between the angle and the symphysis, which was very tender on pressure. He had been to see a dentist and had one tooth extracted, another tooth in the vicinity appeared to me to be loose. I gave it as my opinion that it was one of two things, either tuberculous glands, or an epulis, rather inclining to the view that it was a tuberculous gland. I asked him to let some one else see it. He took the child to another physician, an examination was made and the physician advised them to wait, that he did not think the bone was involved at all, and let it suppurate then open and scrape it out. I had advised immediate removal of the gland. I want to ask the members of the Society present which of the two procedures would have been preferable, that is granting that it was a tuberculous gland, would it not have been better to have removed the sac and gotten rid of all the tubercle bacilli in order to prevent further infection of the system, rather than to let it suppurate?

DR. TURNER ANDERSON: Was the cavity of the tooth still open?

DR. SKINNER: The effects of extraction had disappeared, but another tooth seemed to be loose. The child passed out of my hands, and I learned afterward that this gland was scraped. The family history pointed strongly toward tubercular infection.

DR. W. L. RODMAN: I should judge from what Dr. Skinner has said about the case and the history, that it was most likely of a tuberculous nature. I fully agree with him that the only thing to have done was to dissect out this chain of large glands.

DR. TURNER ANDERSON: How long had the large glands existed, the loose tooth, etc.?

DR. SKINNER: I think about four weeks.

DR. TURNER ANDERSON: I do not think I would have advised any operative procedure in such a case. It is doubtful if suppuration would have occurred. With a history of only a few weeks I think it would have been very active surgery, and believe I would have waited a little longer before advising an operation.

DR. W. L. RODMAN: It is only a question as to whether you open before suppuration takes place. It is a very easy

matter to remove those glands by making an incision along the inner angle of the jaw. I have never seen an acute abscess form in that situation, and believe they are all tubercular.

DR. T. L. McDERMOTT: A little fellow about four years old was brought into my office some time ago having such an enlargement on the bone. I treated this with warm applications and it disappeared in ten days or two weeks without suppuration. I think our action in such cases should depend a great deal upon the character of the infection, if it seems to be spreading increasing rapidly, or if any symptoms point toward softening, then I believe radical measures should be adopted.

MENINGITIS.

DR. S. G. DABNEY: I reported a case to the Society some months ago, of a child who had paralysis of some ocular muscles of the right side, the external rectus muscles of the right eye and partial paralysis of the same side of the body, both upper and lower extremities. I reported at the time that the history was the child had sustained a fall, also had an attack of meningitis, both of which, however, were so long before the appearance of the paralysis as to have hardly caused the lesion. I merely want to say that the child has since died. I have never seen the patient since, but I learn it died of meningitis.

ACQUIRED HYDROCEPHALUS.

DR. TURNER ANDERSON: I would like to continue report of a case:—The child (clinical case) that I presented at the last meeting of this Society, suffering from acquired hydrocephalus, died a few days ago. The man I exhibited having an irregular pulse is now anasarctous, has a very well marked tumor in the epigastric region, which seems to be the left lobe of the liver. Still has disturbed circulation, and is simply growing worse all the time.

PECULIAR CASE OF LAPAROTOMY.

DR. C. SKINNER: I want to mention a peculiar case of laparotomy performed at the city hospital a short time since for double ovarian cyst. One cyst was about the size of a large cocoanut, and was absolutely without a pedicle. I never saw anything like it, the cyst was only fastened by adhesions, I separated adhesion after

adhesion expecting of course to find a pedicle, but when all the adhesions were broken the tumor simply fell out upon the table. The other cyst was smaller, about the size of a goose egg, lower down and more firm than the larger one. This was tied off and removed. The large cyst having no pedicle, I suppose had simply lived from the adhesions which had sprung up around it. The woman has done well, has had no fever.

DR. TURNER ANDERSON: What was the condition of the ovary on the side having the large cyst?

DR. C. SKINNER: I could not find the ovary; it was probably lost in the mass alongside the tube.

DR. T. S. BULLOCK: I saw this case and was very much surprised that there was no pedicle. The tumor was lifted up to the abdominal wall and its own weight broke the attachments and it fell on the table. I never saw anything like it.

DR. TURNER ANDERSON: Did you examine the structures after the cyst was removed?

DR. C. SKINNER: Yes, everything was examined carefully.

DR. TURNER ANDERSON: Might it not have been a par-ovarian cyst?

DR. C. SKINNER: Possibly, but the ovary could not be found. The other ovary was found, the cyst on that side not having gotten so large.

DR. W. L. RODMAN: What was the character of the fluid in the cysts?

DR. C. SKINNER: It was about the color of urine, about like ordinary serum.

DR. T. S. BULLOCK: I noticed Dr. Skinner tie something which he supposed was the pedicle of the large cyst, but afterward found it was not.

TREATMENT OF HICCOUGH.

Hicough is sometimes a very troublesome symptom, and in some cases may be difficult to overcome. Leloir, in a case of a child twelve years old suffering from persistent hicough, applied digital pressure for three minutes to the left phrenic, between the two attachments of the sternomastoid; the hicough stopped and did not recur. He has since used the method in a large number of cases, and always with success; in some cases pressure for a few seconds has been sufficient, in others a few minutes.

Selected Formulae.

SUBSTITUTE FOR OPIATES.

Dr. Portier (*La Semaine Médicale*, No. 19, 1892) recommends the following as a substitute for the preparations of opium:

R Hydrochlorate of cocaine.....cgms. 50.
Phenacetin.....gms. 1.5.
Eucalgine.....cgms. 50.
Salicylic acid.....gm. 1.
Divide into ten powders. Take one powder every two or three hours until the pain ceases.

AN IDEAL DRESSING FOR ABDOMINAL WOUNDS.

Kelly (*Am. Jour. of Obstet.*, December, 1891) states that an ideal dressing should be a paste, which would harden quickly—thin, flexible, transparent, impenetrable, which would hermetically seal the wound from external septic invasion.

After closure of the incision, the skin, the line of the wound, and the sutures are dried, and two layers of sterilized gauze or cheese-cloth, large enough to project five to ten centimetres (two to four inches) beyond the incision on all sides, laid on the skin. This is saturated with the following adhesive mixture, which is evenly distributed over the whole surface:

R Squibb's ether, or washed ether, and alcohol, absolute, equal parts.
Bichloride of mercury (Merck's recryst.), enough to make the solution *viscous*.
(Anthony's) snowy cotton, enough to make a syrupy consistence, adding in small pieces, stirring.

As soon as this is poured over the wound evaporation begins to take place at once, and the celluloid hardens, gumming the gauze fast to the skin. To avoid delay in waiting for this to grow quite hard, and to prevent adhesion to the cotton applied above it, the whole surface is freely dusted over with a finely powdered mixture of iodoform and boric acid:

R Pulveris iodoformi, 4 grammes or 1 drachm.
Acidi borici, 28 grammes or 7 drachms.
M.—Extractissime. Sig.—Dust freely on wound.

This powder is of itself an invaluable protective. I use it constantly in obstetric cases, separating the labia and throwing it into the vagina, where it acts as a guard to the vaginal outlet against septic invasion from without.

The wound thus sealed with celluloid gauze may be left untouched for a week or more, when the dressing should be softened with water, or more rapidly with ether, the gauze lifted off and the stitches taken out.

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Leading Articles.

INSANITY AND CRIMINAL RESPONSIBILITY.

The term "medical expert" as used in the criminal courts is one which frequently tends to make the profession the laughing stock of the public at large, and it has become a by-word that such testimony is a reproach rather than a credit to the profession. A noted lawyer upon being asked what in his consideration was the best life preserver, answered promptly, insanity. This is true enough, thanks to the medical expert. It must indeed be anything but comforting to those members of the profession who keenly feel its responsibilities to the public that so large a number of murderers and other criminals are not only saved from a just punishment through the endeavors of these experts, but again thrust upon the public to be a constant menace to society.

This important subject may be viewed from two points: First the validity of the so-called expert testimony; second, the value of insanity or mental peculiarities or weaknesses as an excuse for crime.

The first point is one that can only be briefly touched upon in this article. The term "medical expert" is one that has absolutely no value and frequently no meaning. Anyone having the title Doctor of Medicine can claim to be a medical expert. In America the student who attains his degree with little or no preliminary education and after a few months' study, and the student who has passed brilliant preliminary examinations and obtained his degree after a four or five years' course in our great medical schools, both arrive at the same end as far as the public are concerned—they are "doctors" and here the matter ends. The title of "medical expert" may be claimed by one as well as the other—and more likely by the former than the latter. That criminal lawyers make active use of this vast uneven-

ness is only too patent, and the mass of absurdly contradictory and untruthful evidence frequently elucidated when such expertism is called into requisition redounds to the great discredit of our honorable profession, and renders the value of evidence from reliable sources almost as questionable as that obtained from unworthy witnesses.

Naturally there are unprincipled men in the medical profession as in every walk of life, but a vast amount of the worthless evidence given in court by medical experts is the result of the deliberate suppression of the truth or of absolute ignorance. To be an expert on insanity means a life-long experience with such cases, and only those who have made mental and nervous diseases a specialty should be permitted to give evidence as experts.

But to turn to the other point at issue—Is insanity or mental peculiarity and weakness a valid excuse for crime?

The Latin poet has justly said that *ira furor brevis est*, and criminal lawyers making use of the theory are content to prove that their clients were insane only at the moment of the commission of the crime, and therefore irresponsible. A glance at the results of coroners' inquests in the case of suicide reveals the great predominance of the verdict "*felo de se* while laboring under temporary insanity."

Indeed, some authorities go so far as to say that no one in the possession of their mental faculties would voluntarily take their own lives. Would not a similar contention be applicable in case of murder and other revolting crimes? Again, in cases where the criminal is evidently of a very low mental calibre, in whom bestiality and brutality are inherent traits, is it justice to credit him with the same amount of moral responsibility as an educated or sane man?

All this is theorizing, but theorizing that is made active use of in our criminal courts, and theorizing which, to the dis-

grace of the so-called medical expert, turns out yearly from behind the bars a large number of dangerous criminals.

In the enforcement of the extreme penalties of the law, two points are held in view: First, the example to others; second, the public welfare.

In what manner the public welfare is to be conserved by the acquittal of the criminal insane or criminally irresponsible is not apparent. If such an acquittal meant a confinement for life or until the individual's mental condition had become such that he was no longer a menace to society, it would be another thing. It is only too common that when such criminals are subjected to confinement it is but a short time before they are liberated, but their mental condition unimproved.

The case of Deeming which recently engaged the attention of the civilized world is that of a man who has made murder a pastime—murder in its most brutal and barbarous form. Not only murder, but theft, forgery and a whole list of other crimes. A man in middle life, and until his arrest able to earn for himself a good livelihood; successfully act a series of different parts; travel extensively; court, marry, and become a father. For years he succeeded in adroitly covering up his atrocious deeds. He was finally brought to justice, his lawyer spoke of him as "the abnormal offspring of a mother's womb," medical experts came to his rescue and endeavored to prove by various facts that he was morally irresponsible for the crimes he committed. The question is, should such a condition justify acquittal. In aiding the acquittal of such monsters our medical experts are confronted by a most grave responsibility, which we fear is in many cases unrecognized. To declare a man mentally deficient, morally debased, or intellectually wanting, and to prove that his mental organization is of low calibre, his moral instinct dulled through disease or inheritance is well enough, but

to assert the absence of moral responsibility and the justifiability of acquittal is a step too far.

Book Reviews.

HOW TO FEEL THE PULSE AND WHAT TO FEEL IN IT. By Wm. Ewart, M.D., Cantab., F. R. C. P. Physician to St. George's Hospital, London, etc., etc. New York: William Wood & Co., 1892.

This little book deals with a subject which is at the present time very much slighted. Consequently we have perused its pages with a considerable degree of interest.

The author confines himself strictly to elementary facts, and does not burden the text with statements of the various pathological conditions in which certain variations in the pulse-wave exist. The principles which govern the study of the pulse are fully but simply set forth, and brief necessary reference is made to the more common diseases which markedly influence it.

Admirable features of the book are its brevity, the bold headings, and systematic subdivision of the subject into very appropriate parts.

The classical forms of irregular pulse receive proper attention.

It is a most excellent work of its kind, and will be found profitable reading for both student and practitioner.

DISEASES OF THE NERVOUS SYSTEM.

By Jerome R. Bauduy, M.D., LL.D., Professor of Diseases of the Mind and Nervous System and of Medical Jurisprudence, Missouri Medical College, St. Louis. Philadelphia: J. B. Lippincott Co., 1892.

We are led from the title of this book to expect a more or less complete treatise on nervous diseases. We are told in the preface that the work is the product of "a long, studious and extensive experience." In fact, it consists of long quotations, with an occasional interpolated paragraph or page which is usually of far less value than the borrowed matter. It is, of course, quite out of the question to write an entirely original work on this subject, but the reader can justly demand that the author shall give him something more than a scrap book of other men's ideas. However, judging from the author's inter-

polations, we are extremely thankful that the borrowed matter is so voluminous.

Eighty pages are devoted to a subject which may or may not have a pathological existence, viz. cerebral anæmia and hyperæmia. Twelve pages are devoted to the certainly not vitally important question of neomembranes of the dura mater. Inflammatory diseases of the membranes are discussed.

The above includes the entire contents of a book purporting to deal with diseases of the nervous system.

The polypharmic tendencies and therapeutic faith of the author are shown in his combination of three varieties of pepsin in one prescription.

He states that "anatomical detail and physiological discussion have been thought inadmissible," yet he gravely tells us that the vaso-motor nerves go to the elastic coats of the arteries, and makes no mention of the muscular coat the true seat of distribution.

In conclusion, we must admit that this is one of the poorest books we have ever read.

INFECTIOUS MULTIPLE NEURITIS FOLLOWING FACIAL ERYSIPELAS.

Leu, (*Charité-Annalen*), reports the case of a patient who came under his observation in the hospital suffering with some slight symptoms of neuritis. The accession of the disease had taken place immediately on convalescence from facial erysipelas and had appeared to be a mild attack of articular rheumatism. There was only a slight paræsthesia of the lower limbs. Following this came a sense of pressure in the main nerve trunks, with disappearance of the patellar and cremasteric reflexes. There was also marked subjective and objective sensory disturbances, with impairment of electrical reaction of the muscles and nerves to both currents, which eventually gave the reaction of degeneration. Atrophic changes took place rapidly. The height of the fever was in no proportion to the pulse acceleration. The breathing was very difficult in consequence of deficient innervation of the muscles of respiration. There was a peculiar desquamation of the skin of the extremities, with excessive hyperidrosis of the entire body and a miliary exanthemata over the breast, abdomen and back. Albumin was present in the urine. The spleen was distinctly enlarged.

Periscope.

THERAPEUTICS.

A NEW BORIC ACID PREPARATION IN THE TREATMENT OF CHRONIC PURULENT OTITIS MEDIA.

Dr. Max Janicke, of Görlitz, recommends the use of a neutral borate or tetraborate of soda, in the treatment of chronic purulent otitis media. This preparation is obtained by heating equal parts of boric acid, borax and water. Upon cooling, the precipitate will be found to be neutral in reaction. It is soluble to the extent of 16 per cent. in water at the ordinary temperature of the room, while in boiling water it is soluble to an almost unlimited extent. This salt possesses the valuable peculiarity that, unlike other salts, it does not precipitate from its hot concentrated solution immediately upon cooling. Precipitation does not occur for some time after cooling, so that solutions of 50 per cent. may be used in the drum-cavity. Thus, a large quantity of an antiseptic material can be introduced into and kept in the drum-cavity for a long time. Once in twenty-four hours is often enough to apply the solution in cases of moderate discharge, while in slight discharges less frequently will answer. The neutral borate of sodium is extremely mild and unirritating. After the use of the above-named solution in cases of large perforation in a total of the membrana tympani, some of the same neutral salt may be blown into the ear.—*Archiv für Ohrenheilkunde*, vol. xxxii pp. 14-24.

OXYGEN INHALATIONS.

In an interesting contribution to the *Chicago Medical Recorder*, Dr. N. S. Davis, Jr., remarks:

Briefly it can be said that the indication for oxygen inhalations in respiratory affections is cyanosis. It can be expected to give prompt and very great relief in acute dyspnoea with cyanosis; such as often accompanies asthma, acute capillary bronchitis, broncho pneumonia, croupous pneumonia, oedema of the lungs, or pneumothorax. Usually oedema of the lungs develops at a time when permanent relief is impossible, as the patient is already too much enfeebled to combat the primary malady, but the best results can be expected when oedema threatens or develops

early while the heart and respiratory muscles are still fairly vigorous. Good results can be hoped for in a self-limited disease of short duration such as croupous pneumonia, for by oxygen sometimes life can be maintained until the crisis in the malady is past. Unfortunately, as the reports of its employment in pneumonia show, when cynosis and oedema develop, the case rarely terminates by crisis, but is prolonged. As digitalis finally fails to stimulate a flagging heart that is extensively degenerated so in pneumonia, oxygen, though signally efficient at first, finally fails to maintain a good degree of oxygenation of the blood.

A degree of greater well-being can be expected even in chronic dyspnoea, but it will be less marked than in acute.

TREATMENT OF SYPHILIS BY EUROPHEN.

Following Eichhoff, Petersen, etc., Dr. Gaudin had experimented with europphen (iodide of isobutylorthoeresol) in the treatment of syphilis. He employs a solution in oil in the proportion of five grains of europphen for a hundred cubic centimeters of oil of sweet almonds, injecting up to five cubic centimeters at a time of this solution by means of the Burlureaux injector. There is a great advantage in employing oil as a vehicle in europphen, in fact, it dissolves a large quantity of the drug, and it is well known that oil, employed as a subcutaneous injection, is not painful and does not produce abscesses of the skin. The conclusions of the author are as follows: The subcutaneous injections of europphen in oil are well borne, although they are at times a little painful; they never provoke accidents, either local or general; they constantly ameliorate the syphilitic manifestations of the tertiary stage, although he cannot state that he has obtained by this means complete cures; they seem to act as quickly and as well as solutions of gray oil or of sublimate; they can thus be employed when we wish to produce a prompt and energetic action in cases of severe symptoms. However, the author recognizes the fact that these injections have little effect on the secondary manifestations in course of evolution. We may thus ask if we can really count upon the efficacy of this treatment in syphilis.

MECHANICAL TREATMENT OF ASTHMA.

Dr. Goebel treats asthma by rapping the posterior portion of the chest quite violently, until the entire thorax is set into rapid vibration. This improves the circulation and also influences favorably the emphysema upon which the disease is based, stimulates the atrophic vesicles, and thus indirectly betters the nutrition of the lung. Although the writer has used this method in but a small number of cases, he feels that he is justified in bringing it to the notice of the profession, as he has obtained such good results in the cases treated.

EUPHORBIA PILULIGERA IN HAY ASTHMA.

E. S. Blair (*Therap. Gaz.*, March, 1892) records a troublesome case of hay asthma in which administration of a fluid extract of euphorbia piluligera gave the happiest results. The patient was a child of 10 years, who every August suffered from attacks of the disease. While administration of the usual remedies altogether failed to procure relief, the new drug was rapidly successful, not only against the primary attack, but in cutting short any recurrence of the affection. The same writer also mentions terebene as a useful drug under similar circumstances.—*Brit. Med. Jour.*

THE USE OF DIGITALIS IN AORTIC DISEASE.

In the *British Medical Journal*, 1892, No. 1628, p. 542, Dr. Alfred G. Barrs, after a very thoughtful discussion, concludes:

1. In all cases of valvular disease the chief desideratum in regard to the heart itself is the condition of the cardiac chambers in respect to dilatation and hypertrophy.
2. That the presence of symptoms in cardiac disease always means failure of compensation.
3. That the condition described as over-hypertrophy or over-compensation does not exist.
4. That the dangers in aortic disease arise from the same cause as the dangers in mitral disease, namely, failure of the compensation—that is, failure of the ventricular muscle to overcome the ever-increasing work put upon it.
5. That if digitalis is safe and benefi-

cial in mitral disease, it is equally so in aortic disease.

Dr. Seymour Taylor argues from clinical experience that there is little or no comparison between the action of the aortic valve and that of the mitral, and that the theories advanced in the preceding paper are not orthodox (*British Medical Journal*, (1892, No. 1631, p. 705).—*Amer. Jour. Med. Sci.*

CHLORIDE OF ETHYL.

Delmis (*Gaz. d. Hôp.*, March 31st, 1892) calls attention to the advantages of chloride of ethyl as a local anæsthetic for minor surgical operations not lasting longer than one or two minutes. The best method of applying the anæsthetic is by using the glass tubes introduced by Monnet, of Lyons. These tubes are filled with the liquid, and have a capillary opening hermetically sealed. All that is necessary is to break off the point of the tube, and direct it on the part to be made insensitive; the heat of the hand holding the tube is sufficient to vaporize the liquid.

THE TOXIC ACTION OF IRON ON THE ANIMAL ORGANISM.

Dr. I. Wojtaszek, from his experiments on animals in this direction, arrives at the conclusion that iron may act toxically only after its injection into the blood or under the skin. The toxic action is manifested by paralysis of the central nervous system, which is preceded by a temporary irritation. Death follows from asphyxia, as the result of paralysis of the respiratory centre. If iron is injected under the skin for a longer time, changes of an inflammatory character appear in the kidneys, and the author admits *per analogiam* the same changes in man. The internal administration of neutral preparations of iron occasions no symptoms of poisoning. Furthermore, the author is convinced that iron does not act upon the muscular tissues of the heart, and hæmorrhage occurring as if from its abuse, may depend, as Scherff asserts, not on greatly augmented arterial pressure, but on the return of the pressure to the normal state after the removal of the disease. Finally, the author remarks that hypodermatic injections very often occasion abscesses or inflammation of the connective tissue. He believes that the best preparations of iron are its com-

bination with the organic acids, because they are easily absorbed and do not occasion local changes in the digestive tract. For hypodermic injections he recommends ferrum pyrophosphoricum cum natrio citrico, and advises physicians to abandon the use of iron.—*Przegląd Lekarski*, Nos. 5 to 7, 1892,

THE TREATMENT OF OBSTINATE HICCUGH.

It is doubtless perfectly true that the treatment of hiccough has not received much notice at the hands of the writers of text-books in this country. But the reason of this probably is that the symptom seldom attains to any serious proportions in this part of the world, so as to call for relief by the medical man in attendance. When, however, hiccough acquires an obstinate persistency, for the relief of which therapeutic aid is urgently needed, difficulties may be met with. A case in point is recorded in an Indian contemporary, where a retired officer, aged 76, who had been suffering from acute congestion of the liver became affected with obstinate hiccough, which set in as a most alarming and distressing symptom. Everything was tried in the way of drug treatment which could be suggested, but without avail. One day, however, some beef tea was taken, which incidentally caused the patient to vomit. For a time, in consequence of this, the hiccough was relieved; whereupon the practitioner determined to try an injection of apomorphine, and the result was that vomiting was produced, and the hiccough ceased permanently. Altogether the symptoms persisted incessantly for seventy-two hours, and caused much distress to the patient. Physostigma has been recommended as useful in these cases.—*Med. Press*.

ELECTROTHERAPEUTICS AND SUGGESTION THERAPEUTICS.

Mœbius claims that in 80 per cent. of all cases in which its action seems beneficial, this is due to its psychical, not its physical influence. Eulenberg (*Berlin. Klin. Wochenschr.*, Nos. 8 and 9, 1892) has undertaken to answer M.'s objections. In regard to the first point, that it has not been proven that electricity has a curative action upon organic paralysis, and that paralysees which improve under electricity would do so without it. Eulenberg points out

that the recovery would be slower and not so complete, and asks whether the results obtained in paralyzed animals are due to suggestion. Mœbius' second and third theses are: that many functional troubles are relieved by electricity and also by suggestion, ergo: electricity acts by influencing the mind only. Eulenberg points out that these troubles are also relieved by morphine, atrophine, bromides or arsenic, and asks whether these too, act psychically, as well as massage and hydro-therapy. The fifth thesis declares that the extreme variation in action of electricity, both galvanic and faradic, can only be explained by assuming that it acts by influencing the mind of the patient. Eulenberg points out that we are dealing with vital processes and not with dead material, and that we cannot predict the action of such well-known drugs as morphine or chloral in all cases. While combating Mœbius' heresy in regard to the action of electricity, Eulenberg admits that Mœbius has done a good work in pointing out the uses and benefits of psychotherapy, and calls attention to the facts that electricity, as administered by the non-expert physician, is liable to be the failure that Mœbius has described, and that general knowledge of its therapeutic application has not kept pace with the distribution and improvement of the electric armamentarium.

TREATMENT OF NEURASTHENIA.

Dr. R. Perdigo, of Barcelona, has taken up the modern treatment of neurasthenia very thoroughly in the *Gaceta médica catalana*, November and December, 1891, numbers. In speaking of general massage, the writer believes it unless in those cases which are well nourished, because it predisposes to an exaggerated morbid excitability. In the asthenic cases, when carried out with care and prudence by skilled masseurs, good results may be expected. the circulation is improved, the nutritive processes hastened, disintegration of elements unfavorable and useless to the organism is brought about, and as results the nervous system is stimulated, the appetite is improved and the general condition of the patient is bettered. The author pays homage to American writers on this subject, and from his many references must have been a close observer of American neurology.

ATROPINE AS A HÆMOSTATIC.

Strizover (*Meditz. Obozrenië*, No. 6, 1892) reports five cases of profuse hæmorrhage (1 of metrorrhagia after early abortion, 3 flooding of obscure origin, and 1 phthisical hæmoptysis) cut short by hypodermic injections of one-sixtieth of a grain of atropine. In the abortion case—woman, aged 26, with aortic regurgitation—digitalis internally, cold to the cardiac region, plugging the vagina with salicylic cotton-wool, and intrauterine injections of tincture of iodine and, later on, of perchloride of iron had previously been tried in vain. After three injections of atropine—one in the evening, another three hours later, and the third in the morning—the hæmorrhage ceased, the patient making a good recovery. A. N. Dmitrieff (*Vratch*, No. 50, 1891) relates two cases in which atropine acted well as a hæmostatic. One was that of metrorrhagia of a fortnight's standing, the patient having been previously vainly treated by ergot internally, plugging, etc. The bleeding completely ceased after four injections of $\frac{1}{60}$ grain of atropine given twice daily. The other patient was suffering from very severe menorrhagia. Persistent internal administration of ergot and hydrastis canadensis, ice locally, etc., having failed, a syringeful of an atropine solution (0.003 gramme of the sulphate to 10.0 aq. dest.) was injected under the skin. A marked general improvement followed half an hour later. After a second dose, five hours later, the bleeding considerably lessened, and after the third and last (twelve hours subsequently) ceased altogether. Only trifling dilatation of the pupils was noticed in the patients.—*Brit. Med. Jour.*

MEDICINE.

RECOVERY FROM LOCOMOTOR ATAXIA.

Dr. Cronyn relates a case of locomotor ataxia in the second stage with cure following an attack of erysipelas of the face and head. The man continued under treatment about a year without benefit, when the attack of erysipelas set in after exposure to cold. He was violently delirious about four days. After recovery from erysipelas it was noticed he could walk without a cane. There was no ataxia. He remained well and in the hospital for three years; was exhibited to stu-

dents, and has remained well since returning to work. Would ask to what the cure was due? There had been no history of syphilis, and the treatment had not been anti-syphilitic. He suggested that the erysipelas may have extended down the cord producing congestion, local extra nutrition of the sclerosed lateral column with restoration of function. Diagnosis had been confirmed by several neurologists.—*Med. Record*, Nov. 7, 1891.

ABSCESSSES IN THE MEDULLA OBLONGATA.

Eisenlohr (*Deut. med. Woch.*, February 11th, 1892) first refers to the rarity of abscesses in this region as well as in the spinal cord (not of traumatic origin), whereas they are fairly frequent in the brain. The first case occurred in a man aged 43, with foetid empyema on the left side, and foetid expectoration. The empyema was incised, a piece of the seventh rib being removed. About three weeks later a second localized abscess in the pleural cavity, communicating with a dilated bronchus, was opened, and a piece of the fifth rib excised. Nine days later there was stiffness and weakness of the left arm, followed by total paralysis of the left side, as well as diminished sensation, and ultimately anæsthesia of the left forearm and hand. The pupils were unequal. Death was due to rapidly increasing dyspnoea. At the necropsy many bronchiectatic cavities were found in the lower lobe of the left lung. On transverse section through the medulla an abscess the size of a pea was found lying between the left olivary body and the floor of the fourth ventricle. The abscess was prolonged downwards as far as the second cervical nerve, and was situated in the posterior columns, but extended also into the gray matter. A smaller focus of round-celled infiltration was found in the right half of the medulla oblongata. The meninges were healthy. The second patient, aged 24, suffered from an attack of cerebrospinal meningitis. After a varying course of about seven weeks he became restless. The pupils were now markedly unequal, the right being widely dilated and fixed, the left moderately dilated and sluggish. Four days later there was deep stupor and slight left facial paralysis. There were epileptiform convulsions and divergent

strabismus before death. There was no optic neuritis. Whitish gray exudation was found on the under surface of the pons and on the upper and lower surface of the cerebellum. At the level of the corpora quadrigemina and near the aqueduct the brain substance was destroyed, and some drops of pus found. Round about there were punctiform hæmorrhages and complete softening. The cavity ended opposite the lower corpora quadrigemina. In the first case the abscess was secondary to the purulent change (bronchiectasis) in the lung. In the second case the changes in the pupils were due to the lesion near the anterior corpora quadrigemina. Abscess of the brain in connection with epidemic meningitis has been described, and especially by Strümpell; but Eisenlohr has not found any record of abscess of the cord in this disease.—*Brit. Med. Jour.*

CEREBRO-SPINAL MENINGITIS.

J. S. Nowlin (*Journ of Nerv. and Ment. Dis.*, October, 1891) maintains that the nomenclature of this affection gives rise to an incorrect view of its pathology and treatment. Almost without exception authors have written as though an inflammatory process in the meninges of the brain and cord were the original lesion to be combated. The actual cause of the disease is malarial poison, which primarily affects the nerve centers; any inflammatory action that may be present is merely concomitant or secondary. Quinine is the antidote, and is specially effective if given during the prodromal stage or as a prophylactic. Adjuvants such as calomel, in frequent and large doses, arterial and nerve sedatives, must be freely used. Nowlin furnishes clinical notes of five cases treated by him in one year. Three of the cases died, but no reference is made to any *post-mortem* examination.—*Brit. Med. Jour.*

THE FATTY SECRETIONS OF THE SKIN.

M. Arnozan has imagined (*Annales de Derm. et de Syph.*), a very ingenious method for determining the presence of fatty matters in different parts of the skin. "When small fragments of camphor are thrown into water, they are subject to rapid vibratory movements, which are immediately arrested if the point of a needle

which had been rubbed amongst the hair is placed in the water; that is to say, fatty bodies arrest as if by enchantment, the movements of the camphor. If camphor does not turn round in distilled water, it may be inferred that the water contains fatty bodies, or that the walls of the vessel are oily." M. Arnozan quotes this passage from Malagutti's *Dictionary of the Medical Sciences*, and verified experimentally the fact which has been stated, insisting on great care and cleanliness as regards the water and the vessel used. The method has shown him that in a healthy adult, all the skin of the head, the upper part of the trunk—anteriorly and posteriorly—the shoulders and the pubes are covered with an oily layer, the other parts of the skin appearing to be quite free from it. On the sternum and the shoulders it is present in very small proportions, and on these parts it is sometimes not found. With reference to recent statements which have been made regarding the functions of the sweat glands, he lay stress on the fact that fat is never present in the palms; whilst in the axillæ it was sometimes present and sometimes absent.

NARCOLEPSY IN THE INSANE.

Dr. Szczypiorski reports (*Ann Medico-Psych.*, Nov, and Dec., 1891) the case of an hereditarily degenerate lunatic, with alternate periods of excitement and depression and para-lucid intervals (when persecutory fancies and exaggerated scruples were present), who had several attacks of narcolepsy. These varied from four to thirty-five days in duration. Of the one-hundred and twenty days he was under care, eighty-seven were consumed in these slumbers.

HICCOUGH AND COMPRESSION OF THE PHRENIC.

A novel method of combating persistent hiccough was recorded by M. Leloir at a recent meeting of the Academy of Sciences (*Lancet*). Some years back he was consulted by the parents of a little patient who was the subject for over a year before of a persistent and distressing hiccough, which recurred every minute or so, and which had resisted every plan of treatment. M. Leloir then conceived the notion of compressing the phrenic, which he

did between the sterno-clavicular attachments of the sterno-mastoid muscle. The compression was digital, and continued for three minutes, causing, however, considerable pain. As a result, the hiccough, disappeared entirely, and has not recurred. Since then he has adopted the plan in several cases of the kind, and always with complete success. The method is simple enough, and can be put in practice by anyone, and is, besides its utility, interesting as an example of the successful application of the researches of Brown-Sequard on inhibition.

HERMAPHRODISM.

The *France Médical*, October 23, 1891, gives a notice of Dr. Charles Debierre's recent work upon this subject, which has been undertaken solely for the following purpose: first, to prove that, from the anatomical point of view, the hermaphrodite is neither a monstrosity nor a freak of nature, but a creature devoid of ordinary development, that is, not developed sexually in conformity with its species. Physiologically, the hermaphrodite is a degenerate, impotent and sterile, imperfect in impulse and characteristic equilibrium, on account of unstable and perverted sex. Socially an unfortunate object, and much to be pitied, the hermaphrodite belongs to the dangerous classes, and society should be warned accordingly. Humanity is either masculine or feminine. The unhappy object of Dr. Debierre's study is neither man nor woman. Before the civil code it would be well to consider the hermaphrodite absolutely neuter, thus excluding the possibility of legal marriages in cases of doubtful sex.

BLACKENING OF THE TEETH BY ANTIPYRINE.

It is asserted that the internal use of antipyrine blackens the teeth; this peculiarity should be generally known by the profession, and also among the laity, that objections may be made on this ground to taking it as a remedy. The blackening is the more intense, the more imperfect the enamel, but may be removed by attrition with dilute acid. The considerable use of antipyrine for several years back, gives importance to this last observation. —*Southern Dental Journal*.

SURGERY.

OPERATION FOR SPASMODIC TORTICOLLIS.

Some advance appears to have been made in the surgical treatment of this most distressing affection; but until its pathology is more clearly ascertained, we cannot hope that the results of treatment will be anything like uniformly successful. One point that lies on the surface is the variations met with in different cases. In one patient the sterno-mastoid muscle may be the only one affected, in another it will not be implicated at all, and similar variations are met with in the case of the other muscles which rotate the head. It is, therefore, difficult in some cases to determine exactly what muscles are implicated and to what nerve treatment must be directed. Difficulty also arises from the depth at which some of the muscles and the nerves supplying them are placed, so that any operation on these nerves involves a very deep dissection. Nerve-stretching, even when very thoroughly carried out, has not been attended with success, and simple division of the nerves has not given better results. Surgeons are now dealing with these cases by the free excision of the nerves supplying the affected muscles, removing the nerves as near to their central ends as possible. Last year M. Petit recorded twenty-six cases in which he excised the spinal accessory nerve. Of these, in thirteen a successful result was obtained, seven were much improved, two were slightly better, and three enjoyed temporary benefit only, while one patient died from phlegmonous erysipelas. The operation in question is a comparatively simple measure. The more difficult cases are those in which the posterior muscles are involved. Early last year Dr. W. W. Keen recorded a case in which he had excised muscular branches of the posterior divisions of the first, second, and third cervical nerves with marked benefit, but not complete success. Soon after Dr. Noble Smith recorded a case in which he had performed the same operation on the first, second, third, and fourth cervical nerves. Dr. Powers has now related a third instance of this operation, in which he exactly followed Dr. Keen's procedure. The last two patients were greatly benefited by the operation. Dr. Keen makes a transverse incision

carried down through the complexus. Mr. Smith employed a vertical incision. The results thus obtained are well worthy of the attention of surgeons, although the treatment is only empirical.—*Lancet*.

HYPOGASTRIC NERVE SECTION AND THE BLADDER.

Dr. Lannegrace states (*Prog. Med.*, April 9, 1892) that simultaneous section of the two hypogastric, or lumbar sympathetic nerves, have no effect upon micturition. The bladder retains its responses and tonicity. Trophic changes do not result. Section of the medullary nerves always produces retention which ceases in about three days. The cause of this retention is to be found in a resistance coming on in the neck. The animals may live indefinitely, although motricity and sensibility are evidently diminished, since the animal urinates upon a higher intra-vesicular pressure than can be normally endured. The urine is normal. The bladder has vascular and trophic disorders. The veins are dilated. There are punctate and patch ecchymoses, epithelial erosions, or even superficial ulceration from which hæmaturia results. The submucous tissue is oedematous and infiltrated with round cells. The lymphoid exudation may spread to the muscular layer. The use of sounds, even when aseptic, in animals, causes the urine to become ammoniacal and sanguinolent. The bladder becomes paralyzed and profuse hemorrhages result, frequently causing death. Sub-acute cystitis often results. Section of these nerves, hence, predisposes to contamination. Simultaneous section of the lumbar and sacral nerves results in urinary retention, which lasts from three to six hours, and is due to constriction of the neck and paralysis of the walls. The same trophic lesions result as those just mentioned. One-sided section of lumbar and sacral nerves has no appreciable effect.

THE TREATMENT OF INTRA-MAMMARY ABSCESES.

Hache (*Rev. de Chir.*, 12e année, No. 3) recommends the following as a means to procure the rapid healing of these abscesses:

1. After antiseptic precautions the most

important procedure, as in all other abscess cavities, is the procuring of perfect drainage.

2. The compression, uniform and firm, of the gland is the best means to accomplish this end, the position or declivity of the incision being of little importance.

3. To produce this uniform and sufficient pressure concentric compression directly of the gland should be joined to the classic method of pressure against the thorax.

4. Drainage-tubes should be avoided as much as possible, as they render the compression painful and retard the healing.

5. When the abscess is superficial and only covered by a thin layer of tissue, it should be incised in this point. The thinness of the walls renders the use of drainage-tubes unnecessary. He reports four cases in which this method of treatment by compression produced rapid cures with restoration of the secretive function.—*Amer. Jour. Med. Sci.*

STATISTICS OF ELEVEN HUNDRED AND FIFTEEN OPERATIONS ON ADENOID TUMORS

Dr. Menière's (*Revue Therapeutique Medico-Chirurgicale*, December 15, 1891) lecture draws its principal interest from the great experience which he possesses on this subject. He prefers, for diagnosis, digital exploration to posterior rhinoscopy. He insists on the grievous modifications which these growths cause in the skeleton, the facial expression, the hearing, and the general condition of children who have them. The only treatment is removal, and the only instrument advised for this purpose is the cutting forceps. The operation may be done in many sittings, separated by an interval of from five to eight days, removing only one piece at a time, which is done so rapidly that children bear it well as a rule. After each operation the patient gargles with cold water, an antiseptic nasal injection is given, and the ears are closed with cotton. On the day of the operation the patient stays in one room. The average number of sittings is three, and often, at the last one, the pharyngeal wall is scratched with a rigid metallic ring, which procedure clears completely all points not reached with the forceps. Several paintings with pure tincture of iodine complete the cure. The

above method is the one always used by the writer.

The second method is to remove all at one sitting. It is necessary to give an anæsthetic. The flowing of blood is often considerable and a febrile reaction may ensue. The child should keep its bed for some time. Chloroform or any other anæsthetic not being absolutely without danger, it appears useless to employ one in "an operation so mild and exempt from real pain."

A TRAGUS RETRACTOR.

This instrument, recommended by Dr. Cresswell Baber, consists of a ring of flat metal, and the end of the band which forms the ring is bent back obliquely, and forms a blunt hook twelve millimetres in length. Fixed on the tip of the left forefinger in examining the right ear, the auricle is drawn upwards and backwards with the middle finger and thumb, and the tragus is drawn forwards by the hook of the retractor. In examining the left ear the retractor is fixed on the left ring finger. By its help the greater part of the meatus may be examined, and surgical means applied more readily than with ordinary speculum. —*Archives of Otology*, January, 1892.

THE TREATMENT OF MALIGNANT NEOPLASMS.

Krauss, in the *Memphis Journal of Medical Sciences*, for May, 1892, reports the results of a trial of von Mosetig Moorhof's treatment by pyoktanin injections for malignant growths. Two cases were treated; the first case was one of epithelioma, involving the upper half of the left orbit, with the frontal, nasal processes of superior maxillary and anterior portion of ethmoid bones at the inner wall of the orbit. The lower lid was edematous, and on the malar process there was another ulcer, independent of the upper one and involving the bone. Methyl-violet solution 1-4000 was injected, the strength being increased subsequently to 1-250. Fifteen minims to a drachm were injected at a time. The treatment lasted some months, the injections being made every third day. On one occasion a localized cellulitis followed, but had no influence on the progress of the affection. The whole treatment lasted about six months and three months later all traces of the disease were still want-

ing. The second case was that of an old lady with an irregular lesion two inches long on the forehead. It had existed for thirteen years. After three injections the bulk of the ulcer disappeared. This case was regarded more as lupoid in nature than epitheliomatous. The author concludes his article by saying that we are only justified in treating inoperable cases in this way. — *Univ. Med. Mag.*

OBSTETRICS.

INVESTIGATIONS IN THE HÆMOGLOBIN PERCENTAGE AND THE ESTIMATION OF THE RED BLOOD CORPUSCLES IN THE LAST PERIOD OF PREGNANCY, AND IN THE PUERPERAL STATE

Bernhard (*Münchener medizinische Wochenschrift*, March 22-29, 1892), has compared a series of blood counts of the patients in the Frauenklinik zur Erlangen, with those of healthy, unimpregnated women.

In the examination of twenty healthy non-pregnant working-women; he found an average of 4,458,000 red blood corpuscles and 80.25 per cent. hæmoglobin.

He examined thirty-two pregnant women, from under 20 to over 40 years of age, and from I to VI-paræ. The examinations were made after eight days, one day after delivery, and on leaving the institution, about ten days after labor.

Comparing these results with the average of the twenty non-pregnant women, he found eighteen cases to exceed. Of these in thirteen cases the excess was in both hæmoglobin and red corpuscles, in two cases excess only in hæmoglobin, in three cases excess in red corpuscles. Of the remaining cases the average count was 4,156,000 red corpuscles and 74.6 per cent. hæmoglobin. The average of all the investigations made on the entrance of the pregnant women into the hospital was 4,545,000 red corpuscles, and 80.75 per cent. hæmoglobin.

From these he draws the following conclusions:

(1) The average in healthy non-pregnant working-women was found to be 4,458,000 red corpuscles, 80.25 per cent. hæmoglobin. The average in pregnant women 4,494,000 red corpuscles, 80.2 per cent. hæmoglobin.

(2) The percentages of the most important components experienced an increase until the end of pregnancy; in seventeen observed for a long time there was a gain of 2.5 per cent. hemoglobin and 14,000 red corpuscles.

(3) Pregnancy exerts an anemia-producing influence. In strong persons there is, on the contrary, an increase of the blood quality.

(4) With the labor the percentage of hemoglobin and the blood count fall, principally through the loss of blood in the delivery.

(5) During the puerperal state there is an increase in the quality of the blood. The estimation on the tenth day after labor is equal to that on the day before the labor.—*Univ. Med. Mag.*

GYNECOLOGY.

ACUTE OÖPHORITIS AS A SEQUEL OF INFLUENZA.

In a recent epidemic of influenza Caraglorgiades (*Satellite*) observed a case of acute ovaritis of the left side, which occurred after influenza:—

A married woman, aged 25, neurotic, otherwise healthy, *nullipara*, with regular menstruation and pelvic organs well developed, was, on the 6th of December, 1891, seized with influenza of the nervous type. The attack, which was regular and never gave rise to any anxiety, lasted about ten days, and then convalescence began to be established. It was noted by the patient, with surprise, that her catamenial discharge, four days overdue, had failed to appear. On the next day (a fortnight after the onset of influenza), though the patient was still in bed, she was suddenly seized with rigors, which were followed by fever of a mild form (100° to 102° F.) with slight exacerbation at night. She had, at the same time, nausea, occasional vomiting, loss of appetite, and constipation; pain over the pubes and in the left iliac region on pressure, irritability of the bladder, and tenderness of the vagina. On moving the cervix uteri and passing the finger behind toward the sacro-iliac synchondrosis, severe pain was at once felt by the patient, causing her to suddenly cry out. By combined rectal and vaginal examination the slightly swollen ovary could be easily felt. Pain was produced by the extension of the

left leg, and the patient could not lie on the right side on account of the intense suffering.

After a varying course, which lasted over two months, she entered into a period of convalescence. In March, for the first time, she menstruated without any pain or discomfort, and since then the catamenial discharge has appeared regularly. Soon afterward she began to gain strength and complete recovery took place.

The treatment employed was as follows: Absolute rest on the back with the hips raised, dry cupping-glasses applied over the sacrum, leeching twice repeated to the iliac region, turpentine stupes over the abdomen, occasional aperients, and calomel and Dover's powder were frequently used. Bromide of potassium combined with chloral were given, chiefly at night, to combat the insomnia and pain. Diuretics and diaphoretics, associated with hot baths, were of great service. During her entire illness the patient had careful nursing and appropriate diet.

TREATMENT OF THROMBOSIS OF THE VULVA.

Bouilly and Charpentier (*Rev. Génér. de Clin. et de Therap.*, April 20, 1892) recommend the observance of the following rules in the treatment of thrombosis of the vulva: 1. *During pregnancy*: resolvent and cold applications; interference only in case of rupture. 2. *During confinement*: a rapid termination of the labor by means of the forceps or by version; if there is hemorrhage, the pouch formed is to be opened, removing the clots, followed by the introduction of antiseptic tampons. 3. *After delivery*: expectant treatment; but, if necessary, the thrombus is incised, and the cavity is then washed out and dressed antiseptically.

VAGINAL SECRETIONS.

The May issue of the *Archives of Gynecology, Obstetrics and Pediatrics* contains a *résumé* of Doederlein's work on vaginal secretions, read by Dr. J. W. Williams, before the Baltimore Gynecological Society.

Doederlein's object was to find what constituted the normal vaginal secretion, and to determine its relationship to puerperal troubles. Healthy young virgins

were selected to furnish a normal secretion, which is described as a small quantity of whitish, crumbling material of the consistency and appearance of curded milk; it contains no mucus and has an intensely acid reaction to litmus paper. Microscopic examination shows it to consist of vaginal epithelial cells and a large quantity of bacilli. The pathological secretion, on the other hand, is of yellowish or greenish-yellow color and cream-like consistency, and often contains mucus and gas bubbles; its reaction is weakly acid or neutral and sometimes alkaline. The microscope shows epithelial cells, numerous pus cells and a mixture of all kinds of micro-organisms. Among 198 pregnant women examined, 44.6 per cent. had pathological secretions.

A point of decided interest is that the large bacilli were always present in the normal and never present in the pathological secretions. This bacillus produces an acid (probably lactic acid) which causes the normal acidity of the vaginal secretion. The products of the life of this bacillus were proved to be inimical to the growth of most of the pathogenic micro-organisms. Large quantities of pus-producing organisms introduced into the vagina would completely disappear in four days. The bacillus is not pathogenic, and, therefore, sepsis can occur only by having poison germs introduced from without, and even these must be in large quantity to counteract the effect of the acid-producing bacilli of the normal secretion.

The proof of the pathogenic nature of the pathological secretion lay in the effect of injecting this secretion in rabbits—suppuration occurred in each case, and death followed in several. This secretion contains almost all kinds of micro-organisms, and in about ten per cent. of the cases streptococci were found. From these observations it is concluded that as the streptococcus is usually the cause of puerperal fever, and as this organism is found only in about ten per cent. of the cases having a pathological secretion, there is no danger of auto-infection among ninety per cent. of all women, whether their secretions be normal or pathological; nor is there any justification in these cases for internal disinfection.

Doederlein believes that the streptococci are unable, of themselves, to invade the uterine cavity and produce infection, and

holds that the only way for this accident to occur is for the germs to be carried there by manipulation and douching. A practical application of these observations is made in the lying-in-hospitals at Leipzig. Students are not allowed to examine patients until the vaginal secretions have been pronounced normal. Permission is not granted for those cases in which the secretion is pathological. Experiments were made with pathological secretions, during the course of pregnancy, to determine how best to restore the secretions to the normal standard.

Of the many agents used, Doederlein found a one per cent. solution of lactic acid the best. This appeared to produce an unfavorable medium for the growth of the pathogenic organisms, while it supplied the most desirable conditions for the development of the normal vaginal bacilli, which in turn, by their action, made the secretions unfit for harboring most of the pathogenic organisms. In many cases thus treated the pathogenic were sure to give place to the normal vaginal bacilli and the secretions change from an unhealthy to a normal condition.—*Univ. Med. Mag.*

ENDOMETRITIS IN ACUTE GENERAL DISEASES.

Massin (*Archiv für Gynäkologie*, Bd. xl., Heft 1) examined twelve uteri from fatal cases of typhoid fever, pneumonia, etc., and found acute interstitial inflammation of the walls as well as of the endometrium, with superficial hemorrhages, the latter being most extensive in connection with continued fever. They were apparently due to venous stasis. The glands showed cloudy swelling and granular degeneration of the epithelium, with hemorrhages into the lumen.

COCAINE IN INTRAUTERINE INJECTIONS.

Lediberder (*Rev. de Chir.*, May 10th, 1892) mitigates and even prevents the pain caused by tincture of iodine when used as an intrauterine injection, by first injecting a 1, 2, or 3 per cent. solution of cocaine. If this solution is kept in contact with the uterine mucous membrane for two or three minutes, the iodine injection causes no pain.

AN UNUSUAL FORM OF SECONDARY CARCINOMA OF THE UTERINE BODY.

Benckiser (*Zeitschrift für Geburtshülfe und Gynäkologie*, Band xxii., Heft 2) found, in a uterus removed *per vaginam* for cancer of the cervix, that the disease had extended above the os internum, the corporeal endometrium being traversed by deep furrows between which were opaque reddish nodules. On microscopical examination the epithelium was seen to be normal in the furrows, while over the nodules the epithelial cells were enlarged and contained large transparent nuclei, while the mucosa was infiltrated with round cells. A few glands still retained their epithelial lining. A small fibrous polypus at the fundus had undergone cancerous degeneration. It was evident that the secondary disease in the corpus uteri had affected only the superficial epithelium, the glands and connective tissue being healthy. The patient being fifty-nine years of age, the absence of glands might be explained as due to climacteric changes. The patient was free from recurrence two years after operation.—*Amer. Jour. Med. Sci.*

CURETTING THE UTERUS BEFORE ABDOMINAL SECTION.

W. R. Pryor (*N. Y. Journ. of Gynec. and Obstet.*, February, 1892) believes that most of the persistent discomfort following abdominal section is due to overlooked and neglected endometritis, and not to adhesions. He is further of opinion that secondary pyosalpinx taking place in tubes which have been left untouched, as apparently healthy, when the opposite appendages were removed, is likewise due to endometritis. The persistent backache, the descent and posterior displacement of the uterus so often observed, are due to the uterus remaining enlarged and heavy from endometritis. All these accidents may be avoided by a curetting preliminary to the major operation. The curette should be most thoroughly applied opposite the tubal openings, because there the endometrium is thickest and hard to reach if inflamed. The vagina should be scrubbed with soap and water and then with a 1 in 3,000 sublimate solution. The iodoform gauze may at once be made by soaking purified mull in the sublimate solution, then rinsing it out and dusting thoroughly with iodoform until the wet gauze can contain no more.

Pryor never injects vinegar, iron, iodine, or other astringents into the uterus, and he never uses styptic cotton. By thus destroying the diseased endometrium before proceeding to the grave operation of removing the appendages, the operator will afford the patient the best chance of complete cure.—*Brit. Med. Jour.*

PEDIATRICS.

HERPES ZOSTER IN CHILDREN.

Comty (*Soc. Méd. de Hop. mal. de l'Enf.*, Paris, 1892, x., 31.) finds that in children the eruption is the whole of the disease. In thirty-three cases twenty-one were girls, twelve boys. Among these thirty-three four were less than two years of age, twenty-nine had passed that age. The age of ten was that at which the largest number of cases occurred. The disease showed itself more frequently in the summer months. It was rarely that the children afflicted failed to present something which might predispose them to the disease. Nervous accidents or shocks before the appearance of the herpes were particularly noted. Among the occasional causes a traumatism, which preceded by three weeks a brachial zoster, may be cited. Another time vaccination was followed after eight days by the zoster.

ENLARGEMENT OF THE SPLEEN IN YOUNG CHILDREN AS A DISTINCT DISEASE.

Carr (*Lancet*, April 23 and 30, 1892) in a rather long article treats of a splenic enlargement in children not due to the usual causes of such conditions. He looks upon it as a disease *sui generis*. He bases his views upon thirty cases observed during three years—sixteen males and fourteen females. The age varied from two months to two and a-half years. They were usually wasted. There was usually pallor, associated with what the author calls a characteristic splenic appearance, a waxy color with a faint olive tint. The degree of splenic enlargement varied. In all cases it could be felt one inch or more below the margin of the ribs. In half the number the lower edge was on a level with the superior spine of the ilium. The liver was apparently enlarged in half the number. In some cases a few of the

external lymphatic glands were enlarged. In four cases hæmorrhage, occurred, due apparently to the severe anæmia. In two cases there was a faint cloud of albumin. The blood was examined in fifteen cases. The red discs varied from 32 per cent. to 78 per cent. of the normal. The hemoglobin was usually from 50 to 67 per cent. The course of the case is essentially chronic. The prognosis is not necessarily bad, though the disease is of long duration. The most satisfactory treatment is with cod-liver oil and iron.—*Univ. Med. Mag.*

THE ANTISEPTIC TREATMENT OF DIPHTHERIA BY ANTIPYRINE.

This already widely used remedy is likely to occupy a still broader field, according to Dr. A. Vianna (*Comptes-rendus hebdomadaires, Société de Biologie*, 1892, No. 12, p. 109). As a result of laboratory work, finding that a 2½ per cent. solution prevented the development of the diphtheritic bacillus, he concludes that in daily amount of ninety grains, by the mouth or hypodermically to thirty grains daily, with either local applications in powder or as a solution, to an ounce daily, it can be employed with brilliant results.—*Amer. Jour. Med. Sci.*

RADICAL CURE OF CONGENITAL FISTULA OF THE NECK.

Chalot (*Rev. de Chir.*, May 10th, 1892) reports the following case: A lad, aged 17, had a congenital fistula of the neck on the right side, the external orifice being situated 2½ centimetres above the right sterno-clavicular articulation. Purulent fluid escaped from the orifice, and a probe could be passed in for 11 centimetres without reaching the cavity of the pharynx. By injecting a colored fluid into the external orifice the internal opening was discovered just in front of the posterior pillar of the fauces, upon the surface of the tonsil. Chalot operated as follows: (1) The margins of the internal orifice were removed and the opening closed by sutures. (2) The lower part of the fistulous canal was exposed and removed as high as the place where it came into relation with the carotid. (3) The part of the canal near the carotid was thoroughly scraped, so that the walls might adhere together. (4) Closure of the cervical

wound, except at one point near the hyoid bone, which was left open to allow drainage. Primary union of the wound followed and a complete cure resulted, the patient being again seen several months afterwards, when no sign of the fistula was visible.—*Brit. Med. Jour.*

ANAL FISSURE AND RECTAL STRICTURE OF CHILDREN.

P. Le Gendre (*Rev. prat. d'obstetrique, de pediatrie—Rev. Inter. de Bibliog. Med.*—April 25, 1892) reports the following two interesting observations: A little girl, 6 months old, after changing wet-nurses several times, was attacked by anal erythema, digestive troubles and pain during defecation. A small sub-cutaneous abscess of the anus was soon formed. The incision of the abscess did not produce any amelioration in the condition of the patient. It was afterwards discovered that she was suffering from a fissure of the anus. Dilatation of this part and canterization of the fissure with chromic acid, were applied, followed by a cure. The other case was of a little girl also, 13 months old, who began, at the age of 4 months, to suffer from digestive troubles. Constipation was obstinate, notwithstanding the numerous curative measures that were made use of constantly. Afterwards, the child would suffer greatly at the moment of defecation. The mother then noticed that the injections would not go into the rectum. On examination, a fissure was found, and it was impossible to open the sphincter with the finger. The child, being chloroformed, was again examined, and it was then found that the impossibility of penetrating the finger was due, not to a simple spasmodic condition of the sphincter, but to a true stricture. A posterior rectotomy was then practiced by means of the thermo-cantery. The stricture measured 3 or 4 centimetres. The rectal pouch was relieved of the fecal matters, and an iodoform tent applied. The child fully recovered.

HYGIENE.

INOCULATION OF CHANCROID.

Dr. Coignet formulates the following practical rules: The pricked point should be small and superficial, so as to avoid

as much as possible implication of the deep skin. It should be as far away from the genital region as possible. If by the day after inoculation there is not the least inflammatory areola, you can say at once that nothing will come of it. If there is a slight inflammatory zone, it is impossible to say till perhaps some days have elapsed. If, however, by the day after inoculation there is a well-formed pustule, with greatly inflamed peripheric zone, the result can be put down as positive. In this case it is useless to wait longer and the ulceration should be destroyed at once, before it has a chance to spread.—*Lyon Medical*.

PROGRESS OF CREMATION.

Cremation seems to be making steady progress. The Sanitary Council of Vienna has passed resolutions to the effect that the burning of the bodies of the dead is the safest mode of preventing the evils of earth burial. It has been decided by the Bombay Municipal Corporation to grant the request of an Englishman to be allowed to erect a crematorium for Europeans in the municipal burying ground. The Corporation has granted a plot of ground, measuring 40 feet square, for that purpose, at a nominal rent of one rupee per annum. The condition attached is to the effect that the crematorium shall be removed at one month's notice if the Corporation so requires.—*Annals Hygiene*.

SOURCES OF SYPHILITIC INFECTION.

Dr. Rassler, in his essay for the M. D. of the University of Kiel, makes a valuable contribution to the literature of syphilitic disease. The *Archiv für Dermatologie und Syphilis* states that Dr. Rassler undertook the labor of analyzing six hundred and thirty cases of syphilis treated in the medical clinic with the object of ascertaining the number arising from extra-genital infection. He found thirty-four such cases, comprising twenty-three of the lips, one of the tongue, two of the mucous membrane of the mouth, and three of the mamma. In three instances the primary sore occurred on the genital organs without connection having taken place, and in the remaining two it was impossible to indicate the locality. The

result of these investigations shows that five percent. of all cases of syphilis are due to extra-genital infection. According to other authorities, the proportion varies between one and ten per cent., except in certain parts of Russia, where the proportion is said to reach as high as eighty or ninety per cent.—*Lancet*.

THE BEST NUTRITIVE ENEMA.

Ewald, as a result of experiments, found that eggs, even though not peptonized, were to a considerable extent absorbed by the rectal mucous membrane. According to the *Mercure Medical* for April 1st, Huber, of Zurich, has recently repeated Ewald's experiments in Prof. Eichorst's clinic, and announces that the absorption of raw eggs is greatly aided by the addition of common salt.

The salt is well borne, and causes, as a rule, no irritation of the bowel. He considers that eggs beaten up with salt, in the proportion of fifteen grains to each egg, are the best for nutritive enema. His method of procedure is as follows: Two or three eggs are taken, and thirty to forty-five grains of salt are added. They are slowly injected by means of a soft rubber tube, carried as high up the bowels as possible. Three such enemata are given daily. An hour before each enema the rectum is cleaned out by means of a large injection of warm water.—*N. Y. Med. Times*.

MEDICAL CHEMISTRY.

THE SALIVA IN DISEASE.

Jawein (*Wiener Medizin. Presse*, 1892, Nos. 15 and 16) has made a study of the saliva in various conditions of disease. He found that the quantity is increased in slight febrile affections, while the fermentative activity remains unchanged, the absolute amount of ferment produced being diminished. In severe febrile affections, the quantity of saliva is considerably diminished, but the amylolytic activity is increased. The diminution in quantity is greater than the increase in activity, so that there is an absolute diminution in activity. In more severe febrile affections, a minimum quantity is secreted, the amylolytic activity being likewise diminished,

the reduction in both being in direct ratio to the severity of the disease. After a crisis, the quantity and fermentative activity of the saliva falls below normal. In acute febrile diseases of protracted duration, the quantity is not rarely normal, the amylolytic activity, however, being subnormal. In even severe cases of pulmonary tuberculosis, neither the quantity of saliva nor its fermentative activity is diminished. A few days before death, the quantity undergoes change, the activity remaining unaltered. In chronic nephritis, the quantity of saliva is diminished, and its amylolytic activity is not rarely below normal, with attendant diminution in production of ferment. In ascites, the production of ferment is greatly diminished; especially is the quantity of saliva diminished; while the fermentative activity undergoes but little change. In protracted, debilitating affections, such as scorbutus, diabetes, Addison's disease, the production of the salivary ferment is not uncommonly diminished.—*News*.

ON THE ESTIMATION OF MILK SUGAR IN MILK.

In determining sugar of milk in the usual manner by Fehling's solution, the difficulty is encountered that the filtrate (from the coagulated milk) is usually too opaque for titration. A. H. Gill recommends (*Journ. anal. Chem.*, 1891, 652) to mix 25 Cc. of the milk with 15 Cc. of milk of alumina and 0.5 Cc. of 25 per cent. acetic acid, to stir, then to heat five to seven minutes over a water bath at 85° C., to add 100 Cc. of water, and to heat again during ten minutes in boiling water under constant stirring. The liquid is then allowed to become cold and to deposit, and the clear portion decanted through a filter into a 500 Cc. flask, the precipitate being prevented as much as possible from getting on to the filter. The operation of boiling and filtering is repeated three times, and the filtrate finally made up to 500 Cc. It is now in condition to be titrated with Fehling's solution. The "milk of alumina" is obtained by precipitating 125 Cc. of ammonia alum with ammonia at a boiling heat, washing the precipitate by decantation, and finally adding water to make the mixture of precipitate and liquid measure 1,000 Cc.

NEWS AND MISCELLANY.

AMERICAN DERMATOLOGICAL ASSOCIATION.

The sixteenth annual meeting will be held at the Pequot House, New London, Conn., September 13th, 14th and 15th, 1892. Secretary and Treasurer, G. T. Jackson, M. D., of New York.

PROF. DA COSTA DISCONTINUES TEACHING AT THE JEFFERSON MEDICAL COLLEGE.

The profession will learn with great regret that Dr. Da Costa has announced that he has decided to discontinue all teaching in connection with the Jefferson Medical College. Dr. Da Costa has for many years been one of the most brilliant teachers in that institution, and his loss must be keenly felt.

RUSH MEDICAL COLLEGE APPOINTMENTS.

Dr. Chas. Warrington Earle, formerly connected with the College of Physicians and Surgeons, has been called to the chair of Obstetrics and Diseases of Children in Rush Medical College, recently made vacant by the death of the late Prof. Knox. Dr. A. C. Cotton, who has for many years been connected with Rush Medical College as an Adjunct Professor, has been elected Clinical Prof. of Diseases of Children.

PUNISHING ADULTERATORS.

How they treated those convicted of this crime in olden times. The *Muenchener Neueste Nachrichten* says: Our jolly adulterators of food and drink have cause to congratulate themselves that the "good old times" are past, and that their little jokes in this line are no longer looked upon in so tragic a fashion as whilom in the good town of Nuremberg. In the "Annals of the City of Nuremberg" of Counsellor Balthasar Muellner, which are kept in the archives of the ancient burgh, among other very interesting documents there are certain notices of the laws for the punishment of adulterators of food, whose Draconic terrors far overstep, in bloodthirsty penalties, the sanguinary code of Kaiser Karl V. In the year 1456,

Hans, Koelbel, a citizen of Nuremberg, and Lienhard Frey, of Thalmessing, for having adulterated some saffron, were, along with their adulterated wares, "on Friday after Misericordias," burned alive at the stake, and a woman who had assisted them was buried alive on the Monday after Boniface. In Anno. 1459, Ulrich Heydenheimer, citizen of Nuremberg, having added water to the wine which he was selling, was, by special act of grace, let off with the light punishment of losing both his ears. In Anno. 1464, Margareth Wessnerin, a huckster, who was caught in giving light weight, was buried alive near the common gallows. Such punishment had at that time, perhaps, no more effect in deterring adulterations than our laws of to-day.

SO-CALLED "HYDRARGYRUM LACTATUM"

A casualty from the misuse of drugs is reported from Bay City, Michigan. Somebody blundered, and somebody else lost his life; so says the *Western Druggist*. A physician of that town fell into the habit of prescribing "hydrargyrum lactatum," meaning thereby a preparation furnished by a Chicago dealer in drugs, which is said to contain one part each of calomel and of bismuth subnitrate, and eight parts of milk sugar. This did no harm so long as the prescriptions were taken to the shops where the Chicago specialty was known. But the day came when a change in pharmacists was made by the patient. The new pharmacist ordered through his wholesale dealers a bottle of "hydrargyrum lactatum," and received a supply of Merck's "lactate of mercury." Merck's catalogue contains that item, with the price marked at \$1.00 an ounce. Chemistry recognizes "hydrargyri lactas," or mercurous lactate, and although it is not often heard of in medicine, Watt's *Dictionary of Chemistry* describes its composition and properties. This preparation was dispensed three times before any injurious effects were noticed, but the fourth dispensing of it was followed by the death of the patient. An

analysis of the drug is said to have shown the presence of mercuric lactate as well as of the mercurous salt, and it is suggested that a reduction had been going on in the bottle after it left the wholesaler's hands. If this is the fact, and can be proved, it will tend to lighten the condemnation launched by the *Western Druggist* against the conductors of the Chicago drug-house for its "criminally reckless terminology," in that they adopted a harmful name to cover a comparatively mild "specialty." It will also tend to lighten the feeling of responsibility for this peculiar "accident" in the mind of the physician, against whom the *Druggist* alleges that his conduct was "little less than criminal," because he prescribed a substance about which he really knew nothing. There seems to be a fatality about nearly all these "specialties or combinations made by some known-to-us alone process;" sooner or later, they become the occasion of loss of life, or they get everybody into trouble who has anything to do with them. The remedy of known composition is not always safe, but it comports more thoroughly with the dignity of the profession to employ it, so that even if perchance a casualty should follow its legitimate use, it would not be necessary to resort to that most idiotic of excuses, "I did not know it was loaded"—the plea of those who point pistols at their best friends and kill them!—*New York Medical Journal*.

ASSOCIATION OF HOSPITAL PHYSICIANS AND SURGEONS OF PHILADELPHIA.

The Association of Hospital Physicians and Surgeons of Philadelphia was organized to afford physicians who visit the city, and desire during their stay to take advantage of the clinical facilities of the various hospitals, an opportunity to witness practical work in any line of general or special medicine or surgery in which they may be interested.

A roster can be had by application to Dr. H. R. Wharton, 112 So. 18th St., Phila.